The Mississippi Federated Cooperatives' System

Its Purchasing and Marketing Services

By J. Warren Mather

FARMER COOPERATIVE SERVICE
U. S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C.

FCS Bulletin 2 April 1954

THE Farmer Cooperative Service conducts research studies and service activities of assistance to farmers in connection with cooperatives engaged in marketing farm products, purchasing farm supplies, and supplying business services. The work of the Service relates to problems of management, organization, policies, merchandising, quality, costs, efficiency, and membership.

The Service publishes the results of studies; confers and advises with officials of farmers' cooperatives; and works with educational agencies, cooperatives, and others in the dissemination of information relating to cooperative principles and practices.

Joseph G. Knapp, Administrator
Farmer Cooperative Service

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FOREWORD

ABOUT 25 years ago farmers in upland Mississippi, using the principle of cooperative self-help, began building off-the-farm business enterprises to purchase production supplies and market farm products. They saw opportunities to make savings and improve quality of supplies in both local retail operations and central or wholesale services. Over the years their cooperatives' total net savings have been about equally divided between the two.

Always seeking opportunities to improve operations, these farmers pushed farther back toward the sources of supply. From pooling orders for purchasing in wholesale quantities, they eventually manufactured fertilizers under their own brand. They installed a central processing plant to handle seeds that they were not able to clean or process on their farms or at their local associations' facilities. Then when they found that there were some things they could do best by cooperating with nearby cooperatives in Mississippi and in other States, they joined with them to procure or manufacture such items as nitrogen fertilizers, insecticides, fencing, and roofing. And looking to the future, they are making plans to supply changing needs brought about by more diversified and mechanized farming in the State.

This publication endeavors to show how Mississippi farmers have helped themselves through cooperative effort, and to serve as a guide for other farmers in the South in improving their economic status.

CONTENTS

SUMMARY AND CONCLUSIONS

THIS bulletin covers in detail operations of Mississippi Federated Cooperatives (A. A. L.), Jackson, and 40 of its 43 member local cooperatives. It analyzes the present purchasing and marketing operations and related services of the system, and compares progress made in serving farmers with its status in 1935–36 when the Cooperative Research and Service Division, now the Farmer Cooperative Service, made an earlier report on its activities.

The publication traces how Mississippi cooperative leaders pioneered in building an off-the-farm business system adapted to the upland area of the State—comprised of local cooperatives democratically controlled yet financed and supervised by their State association. It indicates how these cooperatives have coordinated retailing, wholesaling, and manufacturing of basic production supplies; and have been overcoming various handicaps and problems to successfully serve all types of farmers on an equitable basis. After listing benefits that farmers obtained through these cooperatives, it offers suggestions for improving their operations and services to members. It looks first at the State association and then analyzes the locals.

The State organization, referred to as M. F. C., purchases at wholesale and manufactures farm supplies required by its 43 member and 28 nonmember associations. It also markets cotton for some 9,000 farmer members of these locals and for 2,500 growers located near Jackson and in areas without member associations.

Farm supply volume for the year ended May 31, 1953, totaled $7.1 million, plus $1 million of feed on a brokerage basis, compared with only $570,000 in the 1935–36 year. Net margins were 3.9 percent of volume, with three-fourths of these made by its fertilizer plants. Throughout its history, M. F. C. has concentrated on basic production supplies needed by farmers in its area. In 1952–53 fertilizer constituted 58.5 percent of its supply volume; seed, 22.5 percent; miscellaneous supplies, 10.5 percent, and feed, 8.5 percent, exclusive of that handled on a commission basis. M. F. C.'s sales of cotton have ranged from $1.3 million to $6.3 million a year—fluctuating with the amount of cotton going into the Government loan program.

Facilities to provide these services have grown from virtually none in 1936 to $1 million at cost value by May 1953. M. F. C. now operates four fertilizer plants, a seed processing plant, two warehouses, and a general office building. It also has about a third of a million dollars invested in other regional cooperatives through which it obtains supplies.

Net worth of M. F. C. is almost $1.9 million—equal to about three-fourths of its total assets—and almost all of this has accumulated from operating margins. Furthermore M. F. C. has paid back currently and under its revolving capital plan about $725,000 in cash to patrons.

This study indicated that M. F. C. has been the guiding force in the organization and successful operation of its member locals. One of its unique and outstanding services has been financing and supervising in a democratic manner 41 of its locals. Other services include auditing, handling bonds and insurance, and providing educational and membership assistance.

The member local cooperatives—in most cases serving farmers in an entire county—have become full-fledged purchasing associations since 1936. All now have full-time managers and owned or rented warehouses. The 43 associations had 60,000 farmer members in 1953—a marked increase from the 13,000 served in 1936.

The 40 locals financed and supervised by M. F. C. handled $11.5 million of farm supplies during their year ended June 30, 1952, an average of $285,876 an association. Their business breaks down like this—fertilizer, 54 percent; seed, 22 percent; feed, 14 percent; and miscellaneous supplies, 10 percent of total supply volume. Two co-ops began farm delivery of liquid oil products in 1952–53.

Local cooperatives also provide a number of related services for farmers as the demand arises for them—delivery of supplies, fertilizer spreading, seed cleaning, cold storage, feed grinding, cattle spraying, and post treating services. Thirty-six associations act as local cotton receivers for M. F. C. and five market farm products such as cotton, poultry, eggs, grain, and pecans.

Handling expenses of the 40 associations studied in 1951–52 averaged 6.3 percent of supply volume. Their local net margins were $7,546 an association, equal to 2.6 percent of supply volume. Distributions of net margins from M. F. C. and other co-ops averaged $8,662 a cooperative, equal to 3 percent of their retail sales that year. Method of paying managers, volume, expenses, and purchasing supplies through M. F. C. were analyzed to determine their influence on the operating results of these associations.

By the end of their 1952 year, these associations had member capital averaging $84,086 an association compared with $1,000 in 1936. This represented 82 percent of their total assets in use. Practically all of their total net worth of $3.4 million came from local operating margins and refunds from M. F. C. Twenty-five cooperatives were operating on 5- to 9-year revolving capital plans and they had paid back in cash old equities totaling $369,022 by June 30, 1952.

That's the picture of where the Mississippi Federated Cooperatives' system stood at the time of this study. Any appraisal should recognize that many of these co-ops began in the 1930's under adverse conditions—a bankrupt State purchasing association; a handful of

county units that were little more than order-pooling groups; no capital directly invested by farmers in the cooperatives; only fertilizer and seed used in quantity; a single crop system; a high proportion of tenancy; low farm income; the buying and selling policies of many farmers controlled by landlords, credit merchants, and others; and finally, problems arising from a depression and a major war.

Therefore, the accomplishments and benefits these cooperative farmers of Mississippi have achieved are even more telling by comparison with the conditions shown in the early study back in 1935–36.

Furthermore, an appraisal of operations should recognize the important contributions of management. M. F. C. has had the services of the same general manager since its incorporation and the same assistant manager most of this time. They have employed competent department heads and other personnel as the organization grew. And members have elected farmer directors who have consistently established sound policies for the guidance of management.

The principal benefits from the combined cooperative system may be summarized as follows:

1. *An effective group of local cooperatives and a State association built to serve farmers.*—M. F. C. and its local co-ops have a combined net worth of $3.6 million; fixed assets which cost $2 million, plus another third of a million dollars invested in other regional cooperatives which serve them; and they have 500 full-time employees trained to use this member capital and property for the service of agriculture.

2. *A cooperative purchasing and marketing service adapted to the needs of farmers in the South.*

3. *Substantial net savings made on farm supplies handled and products marketed.*—Combined net margins of M. F. C. and its locals on supplies, after eliminating duplication, have totaled $3.6 million, equal to about 4.4 percent of the retail value of the supplies. Net margins on cotton marketed have amounted to about $444,000, or 1.1 percent of sales. Of the $4 million total net margins, $570,957 have been paid back to individual producers in cash, currently and under revolving capital plans.

4. *Beneficial influences on prices and margins.*—Farmers have benefited from the salutary influence of their cooperatives on fertilizer and seed costs and in being assured of a market for their cotton based on its true grade and staple. While impossible to accurately compute such indirect savings, representatives of the cooperatives believed that they exceeded the direct operating net margins.

5. *Valuable services made available to local cooperatives and to their members.*

6. *Dependable sources of supplies provided.*—By manufacturing fertilizer, processing and storing locally grown seed, and participating with other regionals in buying supplies through United Cooperatives, Inc., M. F. C. has im-

proved its position as a supplier as well as its ability to control quality.

7. *Improved quality of supplies adapted to needs of farmers.*—M. F. C. has upgraded the quality of its mixed fertilizer; and relied heavily on recommendations of the State Experiment Station and United Cooperatives, Inc., Alliance, Ohio, in providing supplies that gave greatest value-in-use to farmers.

8. *Rural leadership, self reliance, business know-how, and cooperation developed.*

9. *Farmers represented by M. F. C. in State and national programs and affairs affecting their welfare.*

Although M. F. C. and its locals have many achievements to their credit, they still have possibilities for improving and strengthening the system. Since this study was first started several improvements have been put into effect by M. F. C.—building a warehouse at Tupelo, obtaining insecticides under its own brand, and arranging to obtain feed and oil products from other regional manufacturing cooperatives. Among the other suggestions outlined for M. F. C. in this bulletin are these:

1. Help all local cooperatives develop a feed volume that will insure efficient operation; and assist those in the northern half of the State to establish a farm delivery petroleum service where there is an interest on the part of farmers for such service.

2. Handle a wider line of miscellaneous production supplies and equipment, including irrigation equipment, to better serve locals and their farmers.

3. Employ at least two general fieldmen to work with member associations.

4. Assist local co-ops with merchandising programs and consider use of contests or other incentives.

5. Hold efficiency analysis meetings for managers and directors of local associations.

6. Improve efficiency of cotton marketing operations and facilities by obtaining more volume through present pools.

7. Establish certain additional departments and group all departments under divisions as volume grows and employees increase.

8. Make plans to eventually build or buy one or two more small fertilizer mixing plants, giving special attention to location and transportation factors.

9. Sell certificates of indebtedness to cooperatives and individuals to help finance facilities.

10. Consider setting aside a small proportion of each year's net margins in a capital reserve account to provide a cushion for emergencies and to protect capital stock and other equities.

11. Study the long-range possibilities for coordinating or possibly merging the wholesale and manufacturing operations of M. F. C. with those of Magee Cooperative Gin (A. A. L.), Magee, Miss., and Delta Purchasing Federation (A. A. L.), Greenwood, Miss.

Suggestions for improving the member cooperatives include:

1. Develop better merchandising practices and more car-door deliv-

eries of feed to better utilize present facilities and reduce unit handling costs. Cooperatives not now handling feed should consider adding this item where farmers are increasing livestock production.

2. Cooperatives in the northern half of the State should investigate the need and possibility of benefiting farmers by delivering petroleum products from bulk plants to farms.

3. Provide more space for displays of miscellaneous supplies and give more specialized attention to them; but at this stage concentrate on production supplies and equipment that farmers buy in largest quantities.

4. Most associations should increase their purchases from M. F. C. as those obtaining the highest proportion through it had the greatest net margins.

5. Some associations should acquire more warehouse space.

6. All should continually study ways of keeping handling costs to a minimum consistent with adequate service.

7. Raise some of the capital needed in the future by selling certificates of indebtedness to members.

8. Some cooperatives need to adopt and enforce more strict credit extension and collection policies.

9. Many need to conduct more membership relations work.

10. In cooperation with M. F. C. make a study of trucking charges for delivering supplies to patrons and of volume discounts.

11. In adding services, undertake those which will benefit a substantial group of patrons.

12. Market farm products for members whenever it appears that their returns can be improved and a survey shows that farmers will cooperate with their patronage and capital.

13. Work toward the following operating standards for purchasing departments based on recent operations and existing facilities: a supply volume of $400,000 annually; gross margins of 10 percent; other receipts of 0.5 percent; expenses of 5.5 percent; and local net margins of 5 percent. Dividends and refunds from M. F. C. should bring total net margins up to 8.5 percent of dollar volume.

SUMMARY OF OPERATIONS AND FINANCIAL ASPECTS

Mississippi Federated Cooperatives (A. A. L.)

	Amount	Percent
A.—For Fiscal Year Ended May 31, 1953:		
Farm supply purchasing volume	$7, 129, 118	-------
Cotton marketing volume	2, 814, 556	-------
Total purchasing expenses (wholesaling and manufacturing)	472, 175	6. 6
Total marketing expenses	88, 888	3. 1
Net margins on supplies	275, 106	3. 9
Net margins on marketing	—41, 721	—1. 5
Cost value of fixed assets	1, 061, 443	-------
Investments in other regional co-ops	303, 982	-------
Net worth or members equity	1, 884, 076	-------
(a) Percent of total assets	----------	73. 4
B.—Since Organization (1930–53):		
Farm supply purchasing volume	48, 238, 365	-------
Marketing volume	38, 809, 216	-------
Net margins on supplies	2, 004, 211	4. 2
Net margins on marketing	443, 938	1. 1
Total net margins	2, 448, 149	-------
(a) Cash returned to member co-ops and growers [1]	724, 587	-------

40 Member Cooperatives

A.—For Fiscal Year Ended June 30, 1952:		
Farm supply volume—total	$11, 435, 024	-------
(a) Average per cooperative	285, 876	-------
Marketing volume (total for 5 co-ops)	722, 773	-------
Gross service receipts	210, 535	1. 7
Average expenses of supply purchasing departments	17, 938	6. 3
Average local net margins on supplies	7, 546	2. 6
Average net receipts from services and marketing	182	0. 1
Average dividends and refunds from M. F. C. and others	8, 662	2. 9
Total net margins per co-op	16, 390	5. 4
Total net margins of 40 co-ops	655, 584	-------
Cost value of fixed assets of 40 co-ops	968, 889	-------
Investments in M. F. C. and other regional co-ops	1, 634, 779	-------
Net worth or members equity	3, 363, 446	-------
(a) Average per cooperative	84, 086	-------
(b) Percent of total assets	----------	82. 1
B.—Since Organization:		
Farm supply volume (estimated)	80, 000, 000	-------
Local operating net margins	1, 596, 718	2. 0
Dividends and refunds from M. F. C. and others	1, 891, 105	2. 4
Total net margins	3, 487, 822	4. 4
(a) Cash returned to patrons [1]	385, 937	-------

Combined System (Exclusive of Duplication)

A.—Since Organization:		
Total net margins	$4, 044, 867	-------
(a) Cash returned to farmers [1]	570, 957	-------
Total fixed assets at cost value	2, 030, 332	-------
Total net worth or members equity	3, 612, 443	-------

[1] Includes dividends, patronage refunds, and retirement of stock and equities under revolving capital plan.

The Mississippi Federated Cooperatives' System

Its Purchasing and Marketing Services

MISSISSIPPI farmers have greatly increased their use of farm supplies and equipment in recent years as the State's agriculture has become more diversified and mechanized, and as farm income has risen to relatively high levels. At the same time, these farmers have made much progress in the cooperative purchasing of their production supplies. Within the past 20 years farmers in the upland or "hill" section have developed 43 county cooperatives and a State organization—the Mississippi Federated Cooperatives (A. A. L.)[1] with headquarters at Jackson—to purchase and manufacture supplies and to market cotton.

Beginning back in the days of the adverse conditions of the early 1930's with fertilizer and seed purchases, these cooperatives developed mainly through savings from conservative, efficient operations with little direct investments by farmer members. In spite of handicaps, these farmers have built substantial organizations offering many benefits and acting as a dynamic force in the agriculture of the State.

Purpose and Method of the Study

A STUDY of Mississippi Federated Cooperatives (A. A. L.) and its member associations was first made by the Cooperative Research and Service Division in 1935–36. The present study, made in 1952–53 had these objectives. (1) To analyze the present status and operations of Mississippi Federated Cooperatives (A. A. L.) and its member associations in serving farmers, and to appraise the prog-

NOTE: The author expresses his appreciation to Charles L. McNeil, General Manager of Mississippi Federated Cooperatives (A. A. L.), his associates, and the managers of local associations who provided information for this study; and to representatives of the Department of Agricultural Economics, Mississippi State College, and the New Orleans Bank for Cooperatives for their helpful assistance. Also appreciation is expressed to M. A. Abrahamsen of the Farmer Cooperative Service for his suggestions.

[1] The Agricultural Association Law as amended in 1930 required that the names of associations incorporated under the act terminate with the letters (A. A. L.)

Farmers in Mississippi developed purchasing cooperatives around fertilizer—from pooling orders for car-door delivery to manufacturing fertilizer in their own plants.

ress made since 1936 in integrating their supply purchasing and marketing operations; (2) to indicate some of the benefits farmers have derived from the county cooperatives and their State association in procuring quality supplies at minimum costs; and (3) to suggest ways by which both the State organization and local cooperatives can improve their operations and services, strengthen their financial condition, and improve the welfare of farmer-members in Mississippi.

The information in this bulletin can be used by farmer directors, managers and other employees of the county cooperatives, by representatives of educational institutions and other agencies working with agriculture in the State; and by farm and cooperative leaders with policy making and educational responsibilities in other Southern States.

Personal interviews where a questionnaire was used early in 1951 gave the information on each county association.[2] Since the study could not be completed at that time, the writer acquired additional information in the summer of 1952 on part of the associations by personal interview. The State association, which

[2] Much of the fieldwork in obtaining data on local associations for this circular was performed by John H. Lister and Ralph Shaw of the Cooperative Research and Service Division. They were not able to complete the study because of Mr. Lister's retirement and Mr. Shaw's change of employment.

provides an auditing service for its local associations, made available current operating and financial data. Interviewing its personnel gave detailed information on the State organization. Managers of member local associations also furnished an evaluation of M. F. C.'s services.

Data were obtained and analyzed covering the financial position and operating results of the State association from organization through its fiscal year ended May 31, 1953, and for the fiscal year of county associations ending on June 30, 1952.

Representatives of other agricultural agencies were also consulted, including the Department of Agricultural Economics of Mississippi State College, the Mississippi Farm Bureau Federation, and the New Orleans Bank for Cooperatives.

Following a brief setting for the study which includes recent changes in Mississippi agriculture, the increasing use of farm supplies, and the early development of the county cooperatives and Mississippi Federated Cooperatives (A. A. L.), this circular is divided into two parts. The first covers the State association since it was largely responsible for the development of the cooperative system—organizing the member county cooperatives and thereafter supervising and financing them. The second part deals with the member associations, their relationship to the State organization, and their services to farmer-members.

Changes in Agriculture and Farm Supply Costs

RECENT changes in the types and methods of farming in Mississippi have resulted in the purchase of more farm supplies, and encouraged the development of cooperatives through which to acquire them.

World War II stimulated livestock production and a more diversified agriculture in Mississippi—a trend which has continued since that time. Cattle on farms on January 1, 1953, for example, numbered about 1.9 million or 23 percent above the 1942–51 average, with 88 percent in the upland portion of the State. Cash receipts from marketings of livestock and its products were 30 percent of total cash receipts from all marketings in 1951. Further details are included in Appendix tables 1, 2, and 5. Cotton and corn, of course, remain the two principal crops, but their acreage has been only two-thirds to three-fourths of that during the prewar period.

More livestock production along with increased dairying and broiler production in certain areas have resulted in farmers purchasing more commercial feeds, more pasture crops seed such as lespedeza, clover, and fescues, more fertilizer for pastures and feed crops, more poultry and dairy equipment, more veterinary supplies, and more hardware, fencing, and building materials.

Increase in mechanization has been another important development. The 52,618 tractors on farms on April 1, 1950, represented a tenfold increase from 1930, while the

56,249 farm trucks were 3½ times that 20 years earlier. Automobiles on farms, however, declined over 10 percent during this period—to 76,250 in 1950. (See Appendix tables 3 and 6.) Gains in tractors and trucks have meant a large increase in the use of petroleum products, tires, batteries, and other automotive supplies and much larger expenditures for farm machinery and repair parts. Although a large amount of this equipment is in the Delta, it is also becoming more significant in the upland area.

The number of farms electrified increased from 4,792 in 1930 to 140,486 in 1950. The result was a greater demand for electrical farm equipment such as water systems, hot-water heaters, feed grinders, chick brooders, milking machines, and electrical appliances and equipment for the farm home.

Although complete data are not available on the expenditures by farmers in Mississippi for production supplies and equipment, data from the United States Census of Agriculture and Bureau of Agricultural Economics showed that in 1949 farmers spent about $77.4 million for feed, seed, fertilizer, and petroleum products. Feed and fertilizer each accounted for about $26 million; seeds, bulbs, and plants amounted to $9 million; and petroleum products, $16.5 million. (See Appendix tables 4 and 5.) The outlay for these four items alone was equivalent to about 16 percent of cash receipts from farm marketings in Mississippi that year.[3] Furthermore, it was about 80 percent more than their cost in 1944 and four times that in 1939. Commercial fertilizer consumption of 792,734 tons during 1950–51 was three times that for the 1935–39 period.

Farmers spent another $7.2 million for tractor repairs and $3.8 million for machinery repairs in 1949. Expenditures for miscellaneous items such as hardware, dairy supplies, insecticides, and containers were estimated at another $5 million, thus bringing the total spent for production supplies to about $93 million that year. And if farmers purchases of buildings, motor vehicles, and farm machinery and equipment estimated at $75 million were included, total expenditures for supplies and equipment used in production would have represented about 30 percent of their cash receipts from marketings.

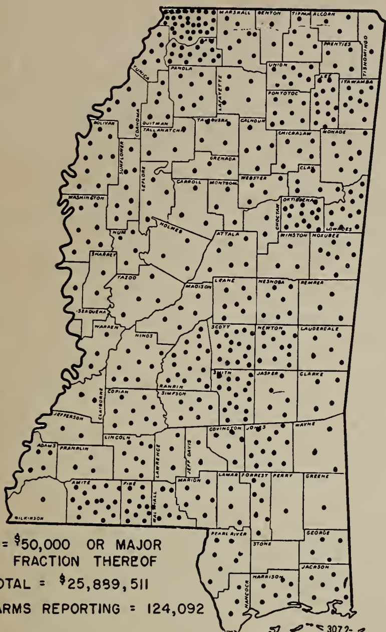
Figure 1 indicates the expenditures for four groups of supplies by counties in 1949. The tons of fertilizer shipped to each county during the year ended June 30, 1952, is shown in figure 2. The quantities by types and areas in the State are shown in Appendix table 7.

Other factors which have influenced the progress made by purchasing cooperatives in Mississippi include the size of farms, proportion of tenancy, and the cash income from marketing. Although the average size of farm has increased from 63 acres in 1935 to 82 acres in 1950, about 45 percent of the farms were still under 30 acres and comprised only 8 percent of total farm acreage. At the other extreme, 5 percent of the farms were over 260 acres in

[3] Expenditures for feed and seed, however, include purchases from one farm to another and thus are considerably greater than amounts bought through commercial channels.

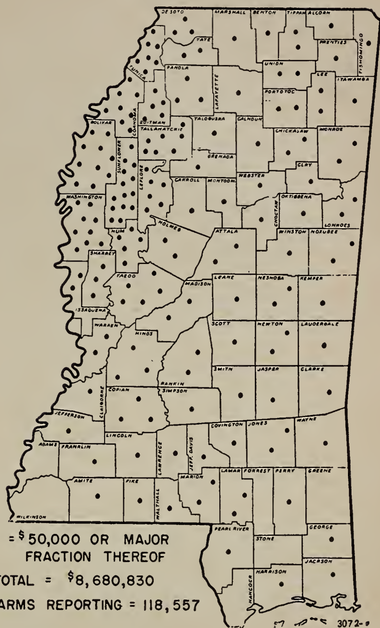
Figure 1.—Expenditures for specified farm supplies, Mississippi, 1949.

Feed



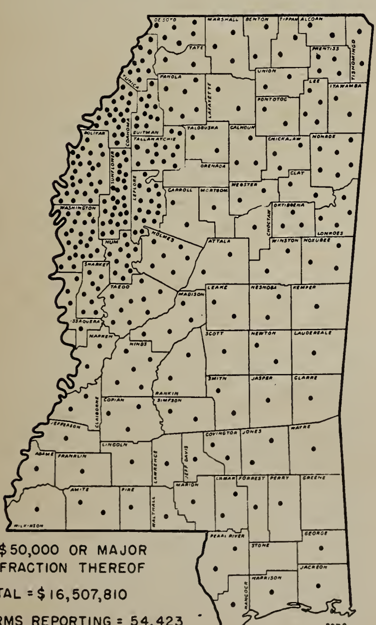
• = $50,000 OR MAJOR FRACTION THEREOF
TOTAL = $25,889,511
FARMS REPORTING = 124,092

Seed, bulbs, plants



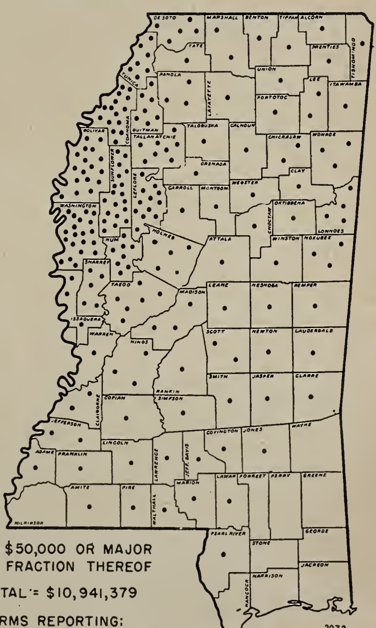
• = $50,000 OR MAJOR FRACTION THEREOF
TOTAL = $8,680,830
FARMS REPORTING = 118,557

Oil products



• = $50,000 OR MAJOR FRACTION THEREOF
TOTAL = $16,507,810
FARMS REPORTING = 54,423

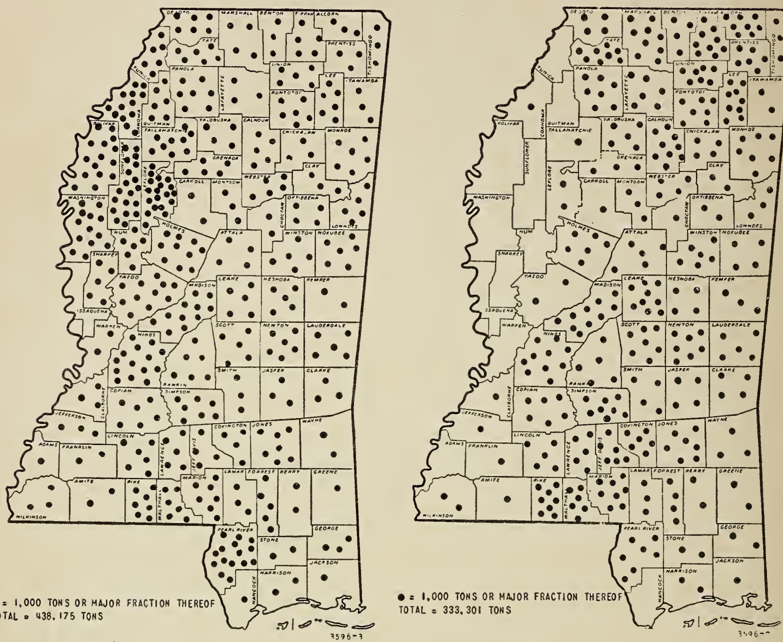
Repairs for tractors and machinery



• = $50,000 OR MAJOR FRACTION THEREOF
TOTAL = $10,941,379
FARMS REPORTING:
TRACTOR REPAIRS = 25,424
OTHER REPAIRS = 57,468

Figure 2.—Shipments of fertilizer by manufacturers to Mississippi counties, year ended June 30, 1951.

Mixed goods | Materials



size and comprised 41 percent of all land in farms.

The proportion of farms which had tenant operators declined from 70 percent in 1935 to 52 percent in 1950; and the proportion of farms with white operators increased from 41 to 51 percent during this same period.

The character of the farms is further brought out in the 1950 Census of Agriculture by the fact that only 60 percent were classified as commercial, that is, those having sales of products of $1,200 or more in 1949. Such farms, however, accounted for 85 percent of the amount spent by farmers for feed, seed, fertilizer, and petroleum products and for 90 percent of the farm products sales that year. The average cash receipts from farm marketings in Mississippi in 1951 was $2,188 compared with $3,476 for the 8 Southern States.

These figures, while differing somewhat in the upland area compared with the Delta, indicate that many farmers in Mississippi have needed to pool their purchasing power through cooperatives to obtain production supplies. Development of cooperatives, however, was slow not only because of the large number of tenants and small farms but because croppers and other

tenants were often closely tied to their landlords in purchasing supplies and marketing products. This was frequently brought about by the credit systems prevailing in the 1930's when landowners, credit merchants, and banks supplied much of the credit needed for production. On the other hand, many large operators such as plantation owners had relatively little interest in cooperatives because they owned commissaries or had an interest in local farm supply stores, or purchased items such as fertilizer in car lots.

In the 1930's the average low income per farm resulting from its size and one-crop farming, and the general economic depression made it difficult for farmers to raise sufficient funds to form new purchasing cooperatives or to finance adequate facilities for existing ones.

Since 1940, however, changing agricultural conditions, higher levels of farm income, decreasing tenancy, better sources of credit, increased use of farm supplies, periodic shortages of various items, and the successful experience of the older cooperatives have encouraged the development and successful operation of purchasing cooperatives in Mississippi.

Early Developments of Mississippi Federated Cooperatives (A. A. L.) and Its Member Associations

MISSISSIPPI Federated Cooperatives (A. A. L.) and its local associations developed from the early purchasing activities of county agricultural agents, county farm bureaus, and the Mississippi Farm Bureau Federation. Following the help which county agents gave farmers in the cooperative marketing of surplus products during World War I, several agents in 1920 undertook to purchase fertilizer for farmers in their counties. The method was informal—orders from individual farmers were assembled and purchases were made in rail car lots from manufacturers. The county agents supervised distribution at the car door, collected from farmers at the time of delivery, and paid for the fertilizer.

About 1923, county agents were prohibited from handling funds in connection with farmers' business activities. Their cooperative purchasing operations were then transferred to the county farm bureaus. The Mississippi Farm Bureau Federation, which was incorporated in 1922, established a statewide wholesale purchasing service. This State organization assembled carload orders for nitrate of soda and acid phosphate originating in the counties and placed them with manufacturers. A large volume of business enabled it to obtain favorable prices which, together with low distribution expense, considerably reduced the cost of fertilizer to farmers. Savings up to $20 a ton on nitrate of soda resulted.

These savings stimulated cooperative purchasing so that fertilizer handled by the Mississippi Farm Bureau Federation reached a maxi-

mum of 50,000 tons per year from 1925–29, equivalent to 20 to 25 percent of the State's annual fertilizer requirements. During this period the State organization, because of its large volume and quantity purchases of nitrate of soda direct from South American producers, was able to sell at prices which had a significant effect on fertilizer prices throughout the State.

Shortly after the Mississippi Farm Bureau Federation started its State cooperative fertilizer-purchasing activities, it established a cotton-marketing cooperative known as the Mississippi Farm Bureau Cotton Association. The management of both these State organizations was centered in one general manager, although each organization had a separate board of directors. In July 1929, however, the cotton marketing association went into receivership, carrying with it part of the assets of the Mississippi Farm Bureau Federation.

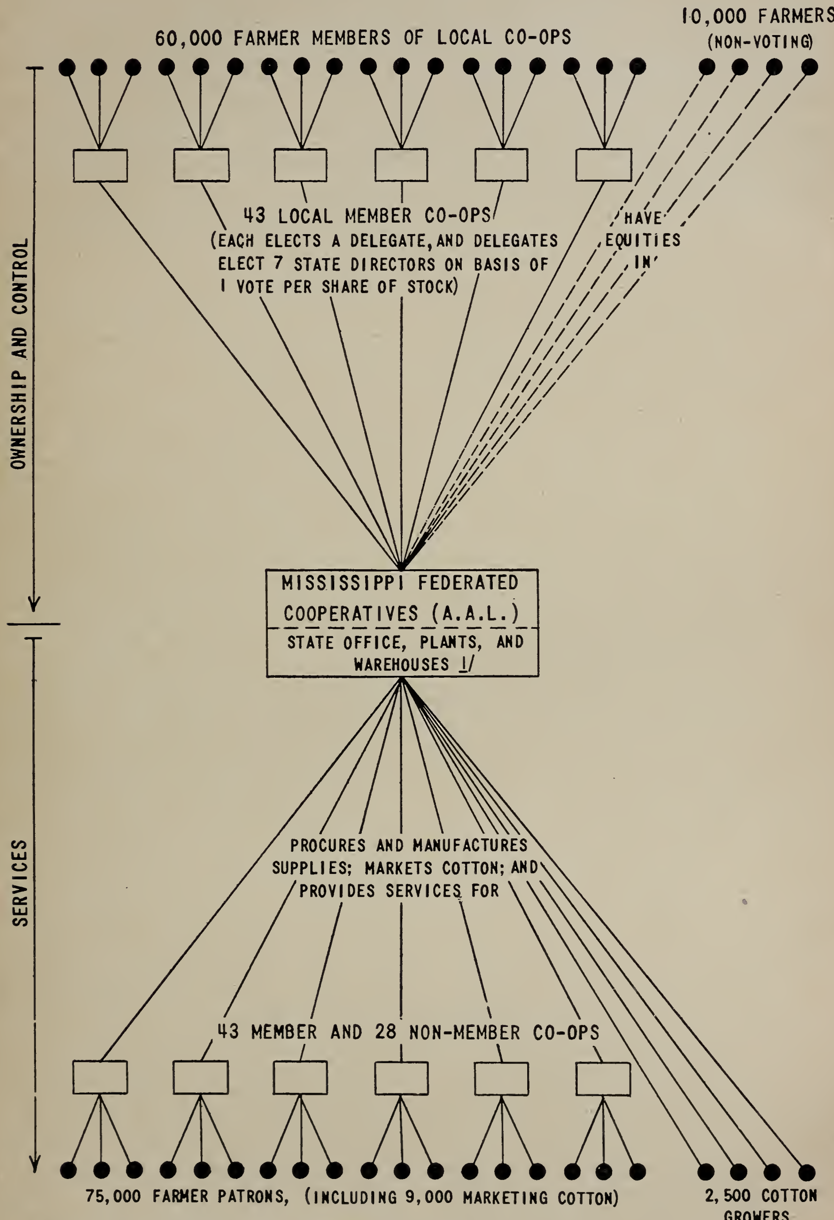
The cotton association reorganized in September 1929, and a new manager took charge of the Mississippi Farm Bureau Federation. Also, the Federation employed a field representative to do educational work, to increase membership, and to collect outstanding fertilizer accounts from the county farm bureau units. Through these efforts, the Federation's deficit of approximately $22,000 was reduced to $8,000 by the end of the 1930 season.

In July 1930, after the close of the fertilizer season, a new State cooperative association known as the Mississippi Farm Bureau Federation (A. A. L.) was formed under the recently amended Mississippi Agricultural Association Law to conduct the purchasing activities of the Mississippi Farm Bureau Federation. It took over the assets of the old organization and later settled its debts. Also, beginning in 1930 all of the 63 county farm bureau units became incorporated purchasing associations and members of the new State purchasing association—each through the purchase of 20 shares of common stock. The assets and liabilities of the old county farm bureau units were transferred to the new county cooperatives. These new associations were of the membership type, but with no membership fees or financial requirements. Their activities were subsequently broadened to include purchasing feed, seed, and other supplies, and marketing miscellaneous farm products.

In 1935 the names of the State and county purchasing associations were once more changed to better distinguish their activities from the general membership and legislative activities of the State and county farm bureaus. The charters of the Mississippi Farm Bureau Federation (A. A. L.) and its affiliated county cooperatives were amended in January 1935, and the words "Farm Bureau" were eliminated from the names of the organizations. The State purchasing association became Mississippi Federated Cooperatives (A. A. L.) and each of the county units took the name of its county with "Cooperative (A. A. L.)" added.

Of the 63 county farm bureau units operating in 1930, only 36 were still active in conjunction with

Figure 3.—Ownership and service structure of Mississippi Federated Cooperatives (A. A. L.) May 1953.



1/ SEE TEXT FOR LIST OF REGIONAL MANUFACTURING CO-OPS IN WHICH M.F.C. HAS A MEMBERSHIP AND FINANCIAL INTEREST

4221-3

Delegates voting on a resolution at an annual meeting of the Mississippi Federated Cooperatives (A. A. L.), Jackson, Miss.

the State association in 1936. By May 31, 1953, only 21 of this group were in operation, but 22 new associations had become members, thus bringing its total membership to 43 local cooperatives.

Part I—Mississippi Federated Cooperatives (A. A. L.)

Membership and Organizational Structure

MISSISSIPPI Federated Cooperatives (A. A. L.) with headquarters at Jackson, hereafter referred to as M. F. C. or the State association, is a regional federated association owned by local cooperatives in the State. (See fig. 3.) It provides farm supplies and equipment for its member associations and performs a central cotton marketing service for individual producers. Also, it renders organizational, educational, auditing, financing, and supervisory services for member cooperatives.

Membership of M. F. C. on May 31, 1953, consisted of 43 active associations which have about 60,000 farmer-members and serve about 75,000 patrons including members and nonmembers. One other recently organized cooperative had applied for membership. The location of the member cooperatives is shown in Part II of this bulletin on page 74. In addition it serves 28 nonmember cooperatives which had about 9,000 farmer-members.

To be eligible for membership in M. F. C., a cooperative association must: (1) Be a county cooperative or other agricultural association, organization, or federation incorporated under the Agricultural Association Law of Mississippi, or which meets the requirements of this law; (2) have the approval of the board of directors of M. F. C.; (3) subscribe at least $200 of common stock; (4) agree to comply with the purposes and provisions of the articles of association and incorporation and of the bylaws; (5) pay the annual dues required by the bylaws, which are now $10; (6) have an annual audit of its affairs made at least 15 days before the regular annual meeting; and (7) permit any duly authorized officer or committee of M. F. C. to examine its books and records at any reasonable time.

Each member under the State corporation laws of Mississippi has one vote for each share of capital stock, both common and preferred. In practice, however, stock voting has been limited to election of directors. In other matters voting has been on the basis of one vote per member. According to M. F. C.'s bylaws voting may be by proxy or by mail on any proposition. A quorum consists of a majority of the whole number of shares of capital stock outstanding.

In addition to these voting association members or member stockholders, all patrons who market cotton directly through M. F. C. are considered as nonvoting members. Patronage refunds accruing to them are carried as allocated margins or

patrons equities in M. F. C. for which no stock is issued. On May 31, 1953, approximately 10,000 individual producers had an equity in M. F. C. but only about 2,500 were patrons that year. The other 7,500 consisted of former cotton patrons, Delta farmers who purchased carloads of fertilizer in earlier years, and patrons of branch stations or stores formerly owned by M. F. C. Agents who took orders for fertilizer from growers in the Delta counties were used by M. F. C. at one time, but it discontinued serving this area during World War II.

Members provide capital for the organization in the form of common and preferred stock and undistributed margins consisting of patrons equities and current net margins. A 7-year revolving capital plan has been used for its common stock and patrons' equities. The capital structure of the organization will be discussed in a later section of this bulletin.

Management and Operating Departments

Present System

THE affairs of M. F. C. are directed by a board of 7 directors elected by the membership at its annual meeting. No person shall be elected as a director unless at the time of his election he is serving on the board of directors of a member association. One director is elected from each of the 3 Supreme Court districts and 4 from the State at large. Nominees are selected by a nominating committee appointed by the president, and nominations from the floor are called for at each meeting. The term of office is 2 years with 4 elected at one annual meeting and 3 at the next. There are no limits on the number of successive terms that a director can serve.

The board meets on call which has been at least quarterly in recent years. An executive committee of 3 members, chosen by the board from its own members, handles the affairs of the association between board meetings. It meets on call and the number of meetings have averaged from 4 to 6 a year.

Directors receive $100 a year as regular compensation plus traveling expenses while attending meetings. For several years the membership has also approved an annual bonus of $200 for each director.

Generally one or more directors are on both the board of directors of M. F. C. and the Mississippi Farm Bureau Federation, but there has never been a year when the same directors constituted a majority of the membership on both boards. In 1952, the president of the Farm Bureau was the only one of its directors on the M. F. C. board. Last year the Farm Bureau amended its bylaws to provide that the general manager of M. F. C. shall serve as an advisory board member.

The daily affairs of the association are managed by a general manager who is appointed annually by the board of directors. He, in turn, has the responsibility of hiring and discharging all other employees, but their salaries and other com-

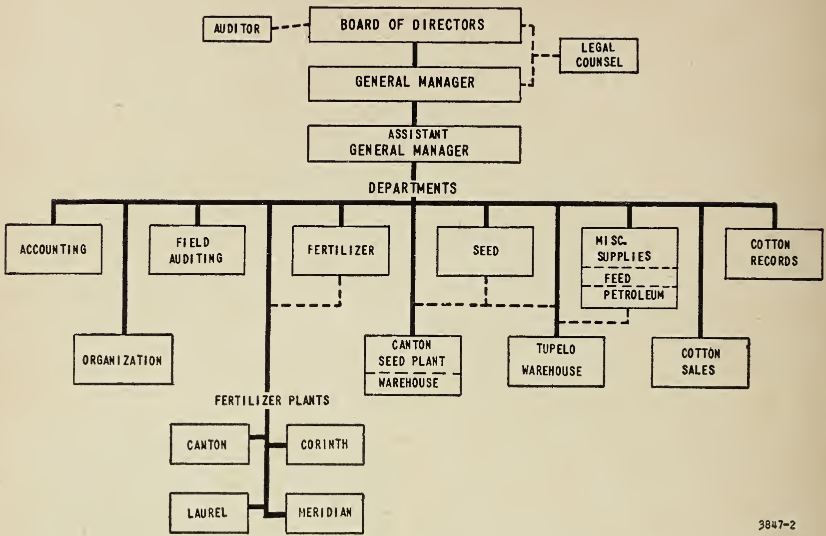
pensation are subject to approval of the board of directors. The manager is paid a fixed salary plus an allowance for travel expenses and the board of directors has also voted him a bonus annually in recent years. Both the manager and secretary-treasurer, either of whom may sign checks in the name of the association, are required to be bonded for $10,000. The association also has an assistant general manager who handles all phases of the operations and to whom department heads report directly. M. F. C. has been under the same general manager since its incorporation and it has had the same assistant manager most of this time.

The management of M. F. C. cooperates closely with Mississippi State College, Mississippi Farm Bureau Federation, the State Production and Marketing Administration, and the State Department of Vocational Education. These agencies serve in an advisory capacity in matters relating to the welfare of Mississippi agriculture.

Operating departments of M. F. C. as of May 1953 consisted of the following: Accounting; field auditing; organization; fertilizer; seed; miscellaneous supplies, feed, and petroleum; cotton sales; cotton records; Canton fertilizer plant; Corinth fertilizer plant; Laurel fertilizer plant; Meridian fertilizer plant; Canton seed plant and warehouse; and Tupelo warehouse. (See fig. 4.) The fertilizer plants, the seed plant, and the warehouses are separate departments because their

The management of M. F. C. consists of a board of directors and a general manager, the latter acting in this capacity since the cooperative was organized in 1930.

Figure 4.—Organization chart of Mississippi Federated Cooperatives (A. A. L.) May 1953.



personnel are employed and their wages, hours, and shifts are determined directly by the assistant and general managers. These departments receive some supervision, however, from the fertilizer, seed, and miscellaneous supplies departments who purchase ingredients and supplies for the plants and issue distribution orders after the product has been manufactured, processed, or stored.

Accounting

The accounting department of M. F. C. handles the usual bookkeeping and accounting work for all departments including branch warehousing and manufacturing operations. It has a staff of 6 full-time employees and one temporary employee during busy seasons.

This department also handles all types of insurance, including equipment, casualty, workmen's compensation, and stock coverage insurance for county cooperatives. It handles bonds and the retirement program of the associations.

Because of the detailed accounting involved in handling Government loan cotton, M. F. C. began hiring a business machine service on July 1, 1951. The service is paid for on a per bale basis. It is used for loan information, deposits and withdrawals, and cotton equity records. Figure 6 on page 50 in the section dealing with cotton marketing illustrates the punch card used and the type of information included on it. It is not set up to provide complete information on grades and classification, as the association does not yet have a statistical section for keeping detailed records on every bale it handles. Such machines also may be used later for keeping a perpetual inventory of farm supplies handled.

Operations of the other departments are included in later sections of this circular.

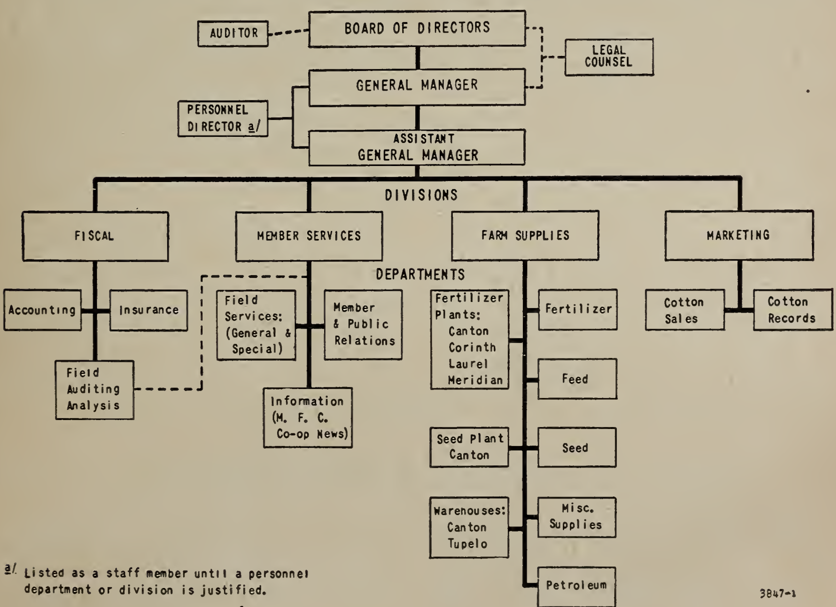
Possible Improvements

M. F. C. has grown rapidly in recent years in volume and in diversity of operations such as manufacturing, processing, warehousing and trucking. This has resulted in a substantial increase in the number of employees and in the responsibilities of management. It now appears that grouping all fertilizer plants into one department in charge of one superintendent will be desirable, and that a field service department to render general assistance and provide special commodity information to local cooperatives would be helpful.

As these developments occur and overall volume increases, the various departments should be grouped into appropriate divisions. This would permit closer supervision and better coordination of operations and would relieve the general manager of many operating details. It would permit him to devote more time to general policies, future planning, financial problems, public relations, and participation in other cooperative and related agricultural affairs.

Figure 5 suggests an organizational or departmental chart M. F. C. might have when its annual supply volume exceeds $12 or $15 million. It is based upon charts used by several other wholesale cooperatives with some modification to fit M. F. C.'s situation. It is of course tentative and will

Figure 5.—Proposed organization chart for Mississippi Federated Cooperatives (A. A. L.) for use when supply volume exceeds $12 million or $15 million.



a/ Listed as a staff member until a personnel department or division is justified.

need to be revised periodically depending upon future growth of the organization. It provides eventually for four divisions—farm supplies, fiscal, member services, and marketing.

The proposed farm supplies division would contain departments handling the manufacturing, purchasing, warehousing, and distribution of various supplies. All fertilizer plants would be grouped under one department head or superintendent.

The suggested fiscal division would include an accounting department, an insurance department, and the field auditing and analysis department. The latter is also a service to member cooperatives and could be equally responsible to that division. It is placed under the fiscal division, however, with a dotted line extending to the member services division indicating close working relations, because of M. F. C.'s financing of county associations. Through periodic checks and audits coming directly to the fiscal division, close supervision can be maintained of operating loans, collections, inventories, and accounts receivables of local associations.

The proposed member services division would contain a field services department consisting of general fieldmen and special commodity fieldmen; a member and public relations department which would handle organizational and educational work; and an information department which would perform information services for both local cooperatives and M. F. C. through M. F. C. Co-op News, other releases, and local papers. Eventually a personnel department or division will be needed to handle recruitment and selection of employees, employee relations, supervision, employee welfare or benefit programs, and training of employees in both the county cooperatives and M. F. C. In the meantime, however, a personnel director could be employed as a staff member of management, or a personnel department could be temporarily established under the fiscal or member services division.

The marketing division would consist of the present cotton sales and records departments and would embody any future departments for marketing other farm products.

Additional study of the detailed operations of M. F. C. is needed to determine when or at what volume and employee level the additional departments and division heads will be justified. One or two changes, however, might be made this year and a division head could also serve as head of one of the departments in a division until the work and responsibility justified two men. Likewise, the assistant general manager could also serve as head of one of the divisions for awhile.

Employees and Employee Welfare Programs

ON May 31, 1953, M. F. C. had 135 regular full-time employees compared with 12 in 1936. The number, according to principal types of duties, were as follows: General and administrative activi-

ties, 34; wholesaling and warehousing, 13; manufacturing and processing, 79; and marketing, 9. In addition, a number of temporary employees are hired at busy seasons during the year.

The board of directors in 1944 established a policy of paying permanent employees an annual bonus if operations have been satisfactory. The bonus has been equal to one month's salary, which is paid at the end of the fiscal year to each employee on a permanent basis even though the employee had not been with the organization a full year. Bonuses paid in the 1952–53 year totaled $16,532.

All regular employees receive two weeks paid vacation. M. F. C. has no specific sick leave plan but it will carry an employee on full pay 3 to 6 months if the management determines it advisable. Unemployment and workmen's compensation insurance is carried on all employees. Many have Blue Cross hospitalization but the entire cost of this is paid by the individuals.

In 1945 M. F. C. adopted a retirement pension plan. Its purpose is to encourage employees to remain in the service of M. F. C. and to provide a means whereby employees, including salaried officers with long service records who participate in the plan, may receive retirement benefits at age 65 for 10 years after retirement. Such benefits will amount to about 30 percent of the highest pay they have received during their service.

This headquarters building of M. F. C. was constructed in 1949.

The plan also has life insurance features for employees who die in the service of the cooperative.

The plan provides briefly that 50 percent of the cost shall be paid by the cooperative and 50 percent by the employee, but in no case shall the contributions by either exceed 5 percent of the salary of the employee. In some cases, however, certain past service and length of service credits are allowed in computing contributions. The plan also provides that local cooperatives may participate in this program by paying the full amount of the employer's contribution. In 1952, however, only 5 local cooperatives were participating.

Facilities

THE headquarters office building of Mississippi Federated Cooperatives at Jackson was built in 1950. In addition to its administrative and accounting offices it has one room for classing cotton. M. F. C. does not maintain a warehouse in Jackson for farm supplies. The other principal facilities owned include warehouses at Canton and

Table 1.—Facilities owned by Mississippi Federated Cooperatives (A. A. L.), May 31, 1953

Type of facility	Cost value	Depreciated value
Fertilizer plants at Canton, Laurel, and Tupelo [1]	$642, 527	$459, 614
Seed plant and warehouse at Canton	150, 491	124, 599
Branch wholesale warehouse at Tupelo	29, 557	27, 176
Office building and equipment at Jackson	188, 344	149, 079
Trucks and automobiles	34, 220	19, 379
Miscellaneous (2 local warehouses leased)	16, 304	2, 574
Total as per audit	1, 061, 443	782, 421

[1] On May 18, 1953, an agreement was entered into to purchase a fertilizer mixing plant at Meridian, Miss., for $140,000.

Tupelo, fertilizer mixing plants at Canton, Corinth, Laurel, and Meridian, a superphosphate manufacturing plant at Canton, and a seed processing and drying plant at Canton. (See table 1.)

In addition to these facilities, M. F. C. had $303,982 invested in other cooperatives which operated various manufacturing and wholesaling facilities. The principal ones were as follows:

1. Mississippi Chemical Corp., Yazoo City, Miss.—$233,500. This organization owns a nitrogen plant for manufacturing ammonium nitrate and anhydrous ammonia. Of the investment which M. F. C. has in it, $133,500 came from member cooperatives that purchased preferred stock in M. F. C. for that purpose.

2. Associated Cooperatives, Inc., Sheffield, Ala.—$51,561. This organization's main function is to distribute on a wholesale basis fertilizer supplies manufactured by the Tennessee Valley Authority. It is now, however, planning to build a nitric phosphate plant.

3. United Cooperatives, Inc., Alliance, Ohio—$3,400. This organization purchases farm supplies and equipment for many of the leading regional purchasing associations in the United States. It owns a paint plant, a motor oil blending plant, and an insecticide plant.

4. Magee Cooperative Gin (A. A. L.), Magee, Miss.—$14,827. This organization handles farm supplies for individual farmers and local cooperatives in southern Mississippi and it owns a fertilizer mixing plant and an insecticide plant. M. F. C. obtains a considerable amount of its cotton insecticides from it.

Mississippi Federated Cooperatives made arrangements early in 1953 for member associations to obtain feed from the M. F. A. Milling Co. which operates efficient feed mills at Springfield and Aurora, Mo., and petroleum products from M. F. A. Oil Co., Columbia, Mo., which has oil refineries at Memphis, Tenn., and Chanute, Kans.

M. F. C. thus has invested about $1.4 million in cooperative facilities for conducting its business operations.

Services for Members

IN addition to procuring and manufacturing supplies, marketing cotton, and handling cotton loans, M. F. C. provides a number of other valuable services for its member associations. Most of these services are provided for in a "financing and supervision" agreement executed between M. F. C. and the locals.

Organization and Education

One of these basic services is assistance in organization, membership relations, public relations, and management and employee training.

Most of the member county cooperatives have been organized with the direct assistance of the federation, in response to requests from farmers and agricultural workers in the county. Representatives from M. F. C. attend the initial organization meetings, and provide forms and information to enable the county cooperative to get its charter, adopt bylaws, elect officers, and raise the necessary capital.

The federation holds periodic meetings of managers and directors to discuss methods for improving business operations, and for disseminating information concerning the objectives and operating policies of the organization. Representatives of M. F. C. help schedule, plan, and hold the annual meetings of the county cooperatives. They also attend meetings of civic and business groups in the areas served to acquaint them with the constructive work being done by farmer cooperatives and the local cooperative, in particular.

Federation officials also represent the entire organization in the National Council of Farmer Cooperatives, the American Institute of Cooperation, and in contacts with State and agricultural agencies, educational institutions, and legislative bodies.

The official organ of the organization, the M. F. C. Co-op News, goes monthly to more than 45,000 individual members of county cooperatives to tell them about the affairs of the county and state organizations, and to help the individual member understand better the principles of cooperative purchasing and marketing.

General Supervision

When a local organization executes a financing and supervision agreement with M. F. C., the local agrees to operate its affairs in a

Conducting tours of cooperative facilities is one of the educational services performed by the State organization, M. F. C.

businesslike manner under the general supervision of M. F. C. Among some of the more important points listed in this agreement (copy included in the Appendix of this bulletin) are the following: keep an active membership list; hold regular meetings of its membership and directors; send copies of the minutes of such meetings to M. F. C.; conduct educational campaigns throughout the county; submit a budget of expenses to M. F. C.; provide adequate fire and tornado insurance covering inventory, and bonds covering employees; and purchase all supplies and market all commodities through M. F. C., except those M. F. C. does not handle which it authorizes the local cooperatives to obtain or market elsewhere.

Furthermore, the local association agrees to employ a manager not related to any of its directors and nominated by M. F. C. The manager's compensation is subject to the approval of both the local cooperative and M. F. C. Likewise, compensation to all employees shall be subject to approval of M. F. C. If necessary, M. F. C. can discharge the manager and employees and take over control of all assets, so long as the local cooperative is indebted to it. The local cooperative agrees to not enter into any major contracts, mortgage its property, retire any capital equities, nor pay cash refunds, without first obtaining approval of M. F. C., so long as the local is indebted to it.

This agreement is entered into voluntarily between the local cooperative and the federation and may be discontinued at any time on 30 days' written notice and the payment of any loans or debts still outstanding under the agreement.

Although the financing and supervision agreement gives M. F. C. a degree of control over a local cooperative while indebted to M. F. C., in actual practice the federation does not want to exercise control unless it becomes absolutely necessary. Local cooperatives are given a choice in purchasing farm supplies and marketing farm products, and operations with locals are handled in a very democratic manner because M. F. C. officials realize that voluntary cooperation is necessary for a sound working relationship. M. F. C. depends upon the good will of the local cooperatives' leaders and on its ability to render services and supplies to assure wholehearted support and patronage of the organization by member cooperatives.

Financing

Loaning operating capital to local cooperatives is an important service provided by M. F. C. Generally funds for this purpose are obtained from the New Orleans Bank for Cooperatives. The local cooperatives remit to M. F. C. as soon as they convert their inventories to cash. The policy of M. F. C. is to lend operating capital to local cooperatives up to an amount equal to twice the net current assets of the local. M. F. C. has not strictly adhered to this policy, however, during periods of peak inventories nor in those cases where a member cooperative made exces-

sive investments in fixed assets, or allowed its accounts receivable to become too large, or paid out too much patronage refunds in cash and impaired its operating capital.

Since December 1, 1951, M. F. C. has charged 4 percent interest a year on the actual daily balance owed by the local. Previously, the interest rate was 3 percent a year. When M. F. C. has interest income in excess of its own interest expense in any year, such excess interest is refunded to the member cooperatives in proportion to the volume of supply business done with the federation. In some years many of the cooperatives have been refunded more than the interest they paid.

M. F. C. sets up a reserve for doubtful accounts on its loans to local cooperatives as conditions warrant, and the locals in turn set up reserves for doubtful accounts from their farmer patrons. M. F. C. formerly required each cooperative to contribute one percent of the amount of all advances to a special reserve fund to be held by M. F. C. and used for defraying any losses incurred from such loaning operations.

Local cooperatives obtain loans for financing their facilities directly from the New Orleans Bank for Cooperatives, local banks, and individuals.

Local cooperatives are allowed to overpay their accounts or develop a credit balance with M. F. C. for which they receive interest at 4 percent a year. They then can purchase supplies and draw against this "loan capital" account as necessary.

Auditing and Analysis

M. F. C. maintains a full-time staff of well trained and experienced field auditors to assist member cooperatives in setting up adequate records and accounting procedures and to audit their books. In July 1952, it employed 3 full-time auditors and 2 temporary men. Usually they prepared audits 4 times a year, with the range from 2 to 6 times a year. These not only show the financial and operating data, but contain comments and recommendations for attaining more efficient operations. These audit reports are placed in the hands of the boards of directors. Any discrepancies or shortages are formally brought to the attention of the board, with recommendations for corrective action, or recovery of the shortage.

The auditors also determine whether the local cooperatives are currently maintaining their records of patrons' equities in accordance with the bylaws and tax regulations. M. F. C. does not charge for its auditing service except in cases where an unusual amount of time is required because of irregularities. In such cases M. F. C. charges only for the actual extra expense involved.

The auditing service summarizes and analyzes the operating and financial statements of affiliated member cooperatives each year and uses such data in making recommendations for improving their operations. It has not, however, published the operating statements and balance sheets of cooperatives under code numbers nor summaries of such material.

Insurance and Bonds

M. F. C. provides a blanket fire and extended coverage insurance program to cover goods in the warehouses of county cooperatives that have entered into the financing and supervision agreement. The insurers are a number of mutual insurance companies doing business in Mississippi. Under the blanket reporting plan, county cooperatives submit at the end of each month a report showing the inventory of goods to be insured, and are charged a premium to cover that amount. Such a reporting system is advantageous because the cooperative can protect the entire amount of its stock at peak seasons without paying a high rate the remainder of the year when less coverage is needed. These policies do not cover inventories for processing, storage, or sale that are in the possession of a local cooperative unless the co-op requests such insurance. The policies do not cover buildings and equipment of local cooperatives, but the auditors of M. F. C. always recommend that such insurance be obtained.

Auditors of M. F. C. check on all insurance carried by each association and recommend changes where necessary. For example, if public liability and property damage insurance on trucks has a $10,000 or $20,000 limit, these auditors recommend a substantial increase in public liability coverage. Cooperatives with less than 8 employees are urged to carry standard workman's compensation insurance even though not required by law to do so. Also, where cooperatives use hired trucks M. F. C. auditors advise a non-ownership insurance policy covering accidents.

Every employee of a M. F. C. member cooperative operating under the financing and supervision agreement is covered by a $10,000 blanket surety or fidelity bond. Because of the great number of widely separated risks and because of the favorable loss history, M. F. C. is able to secure a very low rate for this protection.

M. F. C. collects from member cooperatives the actual amount necessary to pay these insurance and bonding costs.

Fertilizer Operations

FERTILIZER is the principal supply handled by Mississippi Federated Cooperatives and its member associations. M. F. C. has invested slightly more than $800,000 in fertilizer manufacturing and purchasing facilities—about $530,000 of this in its own four plants and the remainder in jointly owned facilities.

Purchasing and Distribution

The State Office fertilizer department of M. F. C. supervises the purchase of materials for mixing and for direct sale and the distribution of both finished and straight goods. This includes contracting for materials, scheduling shipments, traffic matters, and accounting work. All sales of straight materials and finished goods not sold direct from the fertilizer plants are credited to the State Office. These sales include mainly basic slag and nitrogen supplies.

Interior view of M. F. C.'s fertilizer mixing plant at Corinth, Miss.

M. F. C. purchases the majority of its ammonium nitrate from Mississippi Chemical Corp., Yazoo City, Miss.—a farmer-owned organization. Through its membership in Associated Cooperatives, Inc., Sheffield, Ala., M. F. C. also acquires a considerable volume of ammonium nitrate under the TVA program plus triple superphosphate, nitro-lime fertilizer, and calcium meta-phosphate.

It limits sales of fertilizer to member cooperatives. Its prices and discounts are generally maintained at the prevailing level in the industry in Mississippi. M. F. C. encourages local associations to take off-season shipments during December and January to relieve its storage problem, and to benefit local associations with facilities for storing extra fertilizer. Most of the fertilizer is used in the spring, but applying mixed fertilizer on grass and pasture in the fall has been increasing each year.

Approximately 90 percent of the fertilizer manufactured at the Canton plant moves to local associations or to farms by truck, and the other 10 percent by rail.

M. F. C. uses normal channels of advertising for its fertilizer but most is through its own house organ. It follows closely the recommendations of the State agricultural experiment station—especially in keeping M. F. C. farmers advised regarding fertilizer usage.

Managers' meetings are held twice a year, in addition to the annual meeting, to discuss the fertilizer situation. M. F. C. seldom puts on a sales campaign or contest, but at the last two years' annual meetings the three managers with the highest fertilizer volume were recognized.

Manufacturing

Fertilizer Mixing

Prior to 1940, M. F. C. secured fertilizer supplies from old line companies for its county associations. Such arrangements often proved unsatisfactory because some cooperatives could not buy supplies

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Table 2.—Capacity and cost of mixing plants, exclusive of trucks and automobiles, of Mississippi Federated Cooperatives (A. A. L.) on May 31, 1953

Location of plant	Rated capacity in tons		Storage capacity of mixed goods in tons	Cost value	Depreciated value
	Per 8-hour day	Per year			
Laurel	60–75	2, 500	800–1, 000	[1] $18, 913	[1] $10, 989
Corinth	75	5, 000	2, 000	38, 014	15, 211
Canton	200	25, 000	[2] 10, 000	326, 279	234, 447
Meridian	200	25, 000	18, 000	140, 000	140, 000
Total	550	57, 500	31, 000	523, 206	400, 647

[1] Includes $7,500 invested in land for a new fertilizer plant site.
[2] Also, it has storage for 75 tons of bagged goods and 5,000 tons for superphosphate.

during periods of scarcity; and the cooperatives had little, if any, voice in influencing prices of fertilizer in the State.

In late 1939 M. F. C. rented a small building at Laurel, Miss., and began mixing fertilizer with a concrete mixing machine. In 1941 it installed more modern machinery and moved the small mixer to Canton, Miss. When it became evident that these two plants were successful, M. F. C. installed modern mixing machinery in a building at Corinth, Miss., in 1943 to serve the cooperatives in that area. The Canton plant was enlarged in 1946–47 and an existing mixing plant at Meridian was purchased in May 1953. Table 2 shows the capacities and costs of these plants as of May 31, 1953.

Table 3.—Fertilizer mixed, manufactured, or processed by Mississippi Federated Cooperatives during fiscal years ended May 31, 1943–53

Year	Mixed goods, in tons	Superphosphate, in tons	Potash and other materials (processed or bagged), in tons
1943	8, 000	0	([1])
1944	7, 000	0	([1])
1945	10, 000	0	([1])
1946	12, 000	0	([1])
1947	16, 000	0	([1])
1948	22, 000	0	([1])
1949	29, 000	0	([1])
1950	26, 000	13, 410	([1])
1951	31, 000	23, 340	([1])
1952	39, 000	23, 365	3, 403
1953	43, 334	29, 948	9, 699

[1] Data not available.

This is an exterior view of M. F. C.'s fertilizer mixing plant at Canton, Miss. The superphosphate acidulating plant at the back is not visible here.

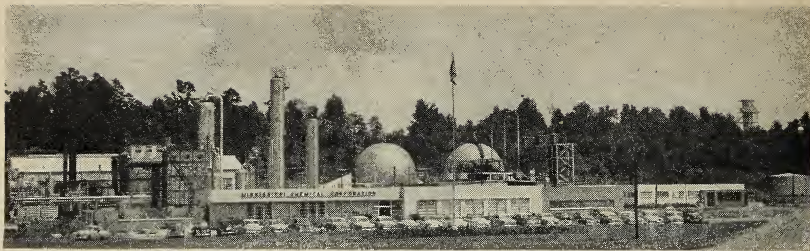
Both the Laurel and Corinth plants have ½-ton-an-hour batch mixers and those at Canton and Meridian have 1-ton-an-hour mixers.

The expansion of fertilizer mixing operations of M. F. C. to over 43,000 tons in 1952–53 is indicated in table 3. M. F. C.'s production has represented about 10 percent of the mixed goods used in the State in recent years. (See Appendix, table 7.)

The fertilizer mixing process is that commonly used in the industry, with the Canton plant more mechanized than the others. Pulverized materials and nitrogen solutions are mixed in batches for about 2 minutes and then moved to a pile where chemical reactions cure the product in about 60 days.

During the last 3 years much of the hand labor formerly used for moving materials has been displaced by power equipment. The Canton and Corinth plants have power driven conveyor belts to carry fertilizer from the mixing machine to an overhead runway along the roof where it is dropped on a shuttle conveyor and then moved on to individual stock piles in the building. The Canton plant has a special conveyor belt to load bulk mixed fertilizer or materials in railroad cars or spreader trucks. This plant also has overhead hoppers to store ingredients for more efficient operation. All plants use electric sewing machines.

Fertilizers manufactured by M. F. C. are sold under its own M. F. C. "Clover" brand. For several years M. F. C. has prescribed an overrun on each of the three major plant foods in its fertilizer formulas. On the basis of samples taken in 1951 by inspectors of the State department of agriculture, the extra plant food in Clover brand fertilizer was valued at approximately $90,000, or about $3 per ton. Another consistent policy is that no material such as sand goes in the mixed fertilizer. Where something has to be added to the mixture to make a 2,000-pound ton, dolomitic limestone is used, not only providing calcium and magnesium but also making the fertilizer nonacid forming.



Nitrogen fertilizer plant of Mississippi Chemical Corporation, Yazoo City. M. F. C. and its member cooperatives are increasing their investment in this plant which is jointly owned with growers and other cooperatives.

Superphosphate Manufacturing

M. F. C. began manufacturing superphosphate in 1950 at its new acidulating plant at Canton, Miss. The process involves the treating or acidulation of finely ground phosphate rock with sulfuric acid in a rotating vat or mixing pan. From here, it is dropped into a 40-ton standard modern-type den. After curing for 30 days it is moved to the bagging machine or mixing plant.

The daily capacity of the plant on an 8-hour shift basis is about 120 tons. The annual rated capacity is 60,000 tons. Storage space of about 5,000 tons is allocated from the mixing plant. The cost of the plant was approximately $260,000.

As indicated in table 6 on page 32, only 23,000 to 29,000 tons, or less than half of the plant's capacity, have been manufactured each year because of the difficulty of obtaining sulfuric acid.

Investment in Mississippi Chemical Corporation

Since M. F. C. and its member associations have an investment of $233,500 in Mississippi Chemical Corp., Yazoo City, Miss., and plan to increase this to $400,000, to manufacture nitrogen materials jointly with growers and other cooperatives, some highlights of this organization are included in this bulletin.

Mississippi Chemical Corp., hereafter referred to as M. C. C., was organized in October 1948 to produce nitrogen compounds for use in agriculture. Approximately 10,000 farmers located mainly in Mississippi bought a total of $4,-250,000 of capital stock; cooperatives in the area bought over $250,000; and a bond issue by Yazoo County raised $750,000. Sufficient additional funds were borrowed from Reconstruction Finance Corporation to build a $7.5 million nitrogen plant. It consisted of an anhydrous ammonia plant or unit with a capacity of 120 tons per day, an ammonium nitrate plant with a capacity of 140 tons a day, and a nitric acid plant. These began operation in mid-1951.

Mississippi Chemical Corp. allocated output to stockholders on the basis of stock investments. In 1951–52 it distributed 1 ton of ammonium nitrate for each $100 of stock. In 1952–53, 1 ton of ammonium nitrate was distributed for each $57.50 of stock and 1 ton

of anhydrous ammonia was allocated for each $100 of stock.

Mississippi Chemical Corp. was organized as a regular corporation with dividends on common stock limited to 5 percent a year. In July 1952, however, it amended its charter and bylaws to provide that patronage refunds shall be paid on purchases after meeting various provisions for paying dividends on stock, retiring indebtedness, and accumulating working capital. Also, the amendments provide that the directors shall have authority to enter into a contract with any lending agency not to pay cash refunds to members without the prior consent of such agency.

Sales during the fiscal year ended August 31, 1951, were $859,778 and substantial loss resulted from low output and various difficulties in getting into production. Sales during the 10-month fiscal year changed to end on June 30, 1952, were $3,897,383 and net margins totaled $268,499. During this period the plant produced 25,532 tons of anhydrous ammonia at 70 percent

Table 4.—Fertilizer purchases by patrons from Mississippi Federated Cooperatives during fiscal years ended May 31, 1948–53

A. Patrons purchases from purchasing department

Year	Mostly basic slag, ammonium nitrate, and other straight materials, in tons	Gross margin	
		Total	Per ton
1948	120, 657	$85, 027	$0. 70
1949	94, 339	81, 163	. 86
1950	122, 657	105, 269	. 86
1951	138, 419	145, 884	1. 05
1952	125, 750	133, 549	1. 06
1953	102, 327	133, 637	1. 31

B. Patrons purchases from fertilizer plants

Year	Quantity, in tons				Net margins [2]	
	Mixed goods [1]	Superphosphates [1]	Other materials	Total tons	Total	Per ton
1948	22, 992	0	0	22, 992	$101, 021	$4. 39
1949	29, 347	450	2, 475	32, 272	124, 956	3. 87
1950	25, 751	3, 499	3, 419	32, 669	79, 265	2. 43
1951	31, 532	11, 260	3, 119	45, 911	230, 771	5. 03
1952	36, 564	13, 663	7, 546	57, 773	141, 478	2. 45
1953	42, 057	14, 156	6, 747	62, 960	203, 494	3. 23

[1] Manufactured by Mississippi Federated Cooperatives (A. A. L.).
[2] After bonuses to employees but before dividends on capital stock and equities.

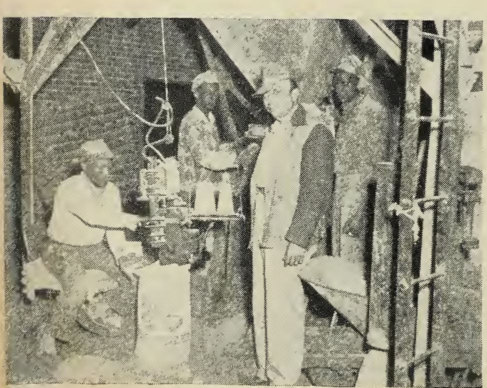
of capacity and 36,651 tons of ammonium nitrate at 86 percent of capacity.

Mississippi Federated Cooperatives was one of two distributors of solid products and handled about 20 percent of the output. From 400 to 500 dealers, including many large farmer-users and local co-ops sold the remainder. Transports owned by M. C. C. distributed liquid products directly from the plant.

In the summer of 1952, a decision was made to double the capacity of the solids plant and add 50 percent to the capacity of the ammonia plant at a cost of approximately $4,750,000. General stock sales raised $1,800,000 for the first phase of the program, and Yazoo County approved another bond issue of $600,000. The remainder is to be obtained from retained savings and additional loans.

Sales for the year ended June 30, 1953, totaled $5,598,034 with net savings of $1,328,442 realized after allowing for tax amortization. Patronage refunds declared for the year totaled $1,090,960. During the period 61,724 tons of ammonium nitrate and 13,851 tons of anhydrous ammonia were manufactured and shipped to stockholders and agents. On June 30, 1953, capital stock outstanding was $6,249,895 and the surplus account was —$253,020 due to prior losses, writeoffs of organization expenses, and current income taxes. Net fixed assets were $7,401,816 and total assets were $10,850,006.

Bagging mixed fertilizer at M. F. C.'s plant at Laurel, Miss.



Volume and Operating Results

During the last 6 years purchases by patrons from M. F. C. of straight materials consisting mostly of basis slag have ranged from 94,339 to 138,419 tons. Volume in 1951–52 represented about 28 percent of all shipments of materials in the State. (See Appendix table 7.) Gross margins realized were from 70 cents to $1.31 per ton. (See table 4.)

Patrons purchases of mixed goods and other materials from the plants of M. F. C. reached 62,960 tons in 1952–53. They consisted of 42,057 tons of mixed goods, 14,156 tons of superphosphate and 6,747 tons of other straight materials. (Most of the remainder of the superphosphate manufactured was used in mixing operations.) Net savings a ton ranged from $2.43 to $5.03 per ton the last 6 years. This was based on total tons handled as the association did not show separate net margins on mixed goods, superphosphate, and straight materials.

The 1952–53 operating statements of the 3 plants showed considerable variation in net margins

ranging from $2.42 to $5.03 a ton. (See table 5.) When the three statements were combined, gross margins after deducting bags, freightout, and inspection fees, averaged $7.92; expenses were $4.76; and net margins, including other revenues, averaged $3.23 a ton.

Table 6 shows costs and approximate savings in manufacturing superphosphate in the Canton plant the last three years. These items are based on production at less than 50 percent capacity because of the shortage of sulfuric acid. In 1952–53 the total materials and manufacturing costs were $17.65 a ton, or 88 cents for each unit of phosphoric acid.

If the association had not manufactured its superphosphate but had purchased it from other manufacturers, f. o. b. their plants, the cost would have been approximately $19 a ton, or $1.35 more than its own cost. In addition, M. F. C. would have had to pay transportation costs from the nearest available manufacturing point. This probably would have been Hattiesburg, Miss., on which the charges would have been $2.79 a ton. Thus, the total savings to the association on superphosphate used in mixing amounted to about $2.82 a ton in 1952–53 compared with $2.19 a ton in 1951–52 and $3.20 a ton in 1950–51.

Total purchases of fertilizer by patrons from M. F. C. were $5,174,643 in 1952–53 compared with $284,446 in 1935–36.

Patronage refunds declared on fertilizers during the last 5 years are shown in table 7. The association changed from "a dollar" to "a ton" basis for declaring refunds on M. F. C. Clover brand mixed fertilizer in 1952 because delivered prices varied due to freight, and because some associations did their own hauling.

Benefits and Possible Improvements

One of the objectives of this study was to indicate the principal benefits which farmers and their local cooperatives have received from M. F. C. It is difficult to measure benefits from the fertilizer services rendered by M. F. C. since its organization. No one knows what the level of margins and quality would have been and how much fertilizer would have been available if M. F. C. had not been in the picture.

Some of the more tangible benefits, however, which farmers have received are as follows:

1. Most of the $2.4 million of net savings of M. F. C. to date have come from fertilizer operations. They have been largely retained in the business to improve facilities and services to local associations and their members.

2. Indirect savings have been made for farmers through M. F. C.'s regulating effect on prices or margins. For example, M. F. C. reported that early in 1952 it refused to raise its prices $2 a ton on mixed fertilizers along with other companies. As a result prices soon dropped again and farmers in Mississippi were saved many thousands of dollars on their plant food bill.

Table 5.—Operating statements of fertilizer manufacturing plants of Mississippi Federated Cooperatives (AAL) for the fiscal year ended May 31, 1953

Item	Canton plant		Corinth plant		Laurel plant		Total	
	Amount	Per ton	Amount	Per ton	Amount	Per ton	Amount	Per ton
Purchases by patrons:								
Mixed goods	$1,337,765	$43. 53	$376, 729	$43. 06	$104, 590	$40. 62	$1,819,084	$43. 25
Materials	522, 910	27. 37	51, 147	45. 71	24, 153	35. 62	598, 210	28. 62
Total	1, 860, 675	37. 33	427, 876	43. 36	128, 743	39. 58	2, 417, 294	38. 39
Net cost of goods and materials:								
Mixed goods	808, 993	26. 32	240, 262	27. 46	66, 179	41. 62	1, 115, 434	26. 52
Materials	412, 863	21. 61	36, 546	32. 66	19, 950	29. 42	469, 359	22. 45
Total	1, 221, 856	24. 51	276, 808	28. 05	86, 129	26. 48	1, 584, 793	25. 17
Gross margin (before freight out and direct expenses):								
Mixed goods	528, 772	17. 21	136, 467	15. 60	38, 411	14. 92	703, 650	16. 73
Materials	110, 047	5. 76	14, 601	13. 05	4, 203	6. 20	128, 851	6. 16
Total	638, 819	12. 82	151, 068	15. 31	42, 614	13. 10	832, 501	13. 22
Bags, freight, and inspection costs:								
Net bag cost	137, 586	2. 76	31, 729	3. 21	9, 313	2. 86	178, 628	2. 84
Freight—out	119, 025	2. 39	15, 552	1. 58	2, 880	. 89	137, 457	2. 18
Inspection fees	10, 150	. 20	2, 766	. 28	732	. 23	13, 648	. 22
Fertilizer storage	2, 477	. 05	1, 246	. 13	149	. 04	3, 872	. 06
Total	269, 238	5. 40	51, 293	5. 20	13, 074	4. 02	333, 605	5. 30
Gross margins (after bags, freight, etc.)	369, 581	7. 42	99, 775	10. 11	29, 540	9. 08	[1] 498, 896	7. 92

Operating expenses:								
Salaries and wages	108, 353	2. 17	24, 694	2. 50	12, 302	3. 78	145, 349	2. 31
Bonus and tax	2, 368	. 05	1, 020	. 10	188	. 06	3, 576	. 06
Other operating expenses	70, 716	1. 42	11, 722	1. 19	5, 300	1. 63	87, 738	1. 39
State office overhead	46, 189	. 93	12, 907	1. 31	3, 883	1. 19	62, 979	1. 00
Total	227, 626	4. 57	50, 343	5. 10	21, 673	6. 66	299, 642	4. 76
Other deductions: Land cost amortization and donations	69	(2)					69	(2)
Total expenses and deductions	227, 695	4. 57	50, 343	5. 10	21, 673	6. 66	299, 711	4. 76
Net operating margins	141, 886	2. 85	49, 432	5. 01	7, 867	2. 42	199, 185	3. 16
Other revenues: Handling charges, rent, etc	4, 166	. 08	229	. 02			4, 395	. 07
Net margin (before dividends on capital stock)	146, 052	2. 93	49, 661	5. 03	7, 867	2. 42	203, 580	3. 23
Tons purchased by patrons:	*Tons*		*Tons*		*Tons*		*Tons*	
Mixed goods	30, 733		8, 749		2, 575		42, 057	
Materials	19, 106		1, 119		678		20, 903	
Total	49, 839		9, 868		3, 253		62, 960	

[1] Does not include net loss of $86 on trucking operations as shown in combined operating statement of all departments.
[2] Less than 0.005.

Table 6.—Costs and approximate savings in manufacturing superphosphate at Canton plant by Mississippi Federated Co-operatives (AAL), in years ended May 31, 1951–53

Item	1951			1952			1953		
	Total amount	Per ton	Per unit	Total amount	Per ton	Per unit	Total amount	Per ton	Per unit
Wholesale market value (in bulk)[1]	$415, 452	$17. 80	$0. 89	$434, 591	$18. 60	$0. 93	$569, 012	$19. 00	$0. 95
Compared with cost of materials and manufacturing expense:									
Phosphate rock	181, 594	7. 78	. 39	191, 032	8. 18	. 41	244, 813	8. 17	. 41
Sulfuric acid	140, 023	6. 00	. 30	169, 427	7. 25	. 36	231, 091	7. 72	. 38
Water	564	. 02	-------	694	. 03	-------	1, 133	. 04	-------
Total materials	322, 181	13. 80	. 69	361, 153	15. 46	. 77	477, 037	15. 93	. 79
Plant expenses	32, 393	1. 39	. 07	33, 130	1. 42	. 07	31, 191	1. 04	. 05
Labor expenses	7, 234	. 31	. 02	7, 147	. 31	. 02	10, 622	. 35	. 02
State office overhead [2]	10, 343	. 44	. 02	8, 063	. 34	. 02	9, 930	. 33	. 02
Total expenses	49, 970	2. 14	. 11	48, 340	2. 07	. 11	51, 743	1. 72	. 09
Total materials and expenses	372, 151	15. 94	. 80	409, 493	17. 53	. 88	528, 780	17. 65	. 88
Net savings in manufacturing	43, 301	1. 86	. 09	25, 098	1. 07	. 05	40, 232	1. 35	. 07
Additional savings in transportation on amounts used in mixing [3]	31, 437	2. 64	. 13	26, 943	2. 79	. 14	44, 280	2. 79	. 14
Total savings (approximate) [4]	74, 738	3. 20	. 16	52, 041	2. 19	. 11	84, 512	2. 82	. 14
	Tons	*Units*		*Tons*	*Units*		*Tons*	*Units*	
Tons manufactured [5]	23, 340. 0	-------		23, 365. 1	-------		29, 948	-------	
Average units of available phosphoric acid per ton	---------	20		---------	20		---------	20	
Total units of phosphoric acid	---------	466, 800		---------	467, 302		---------	598, 960	

See page 33 for footnotes.

Table 7.—Rates of patronage refunds declared on fertilizer by Mississippi Federated Cooperatives (A. A. L.), 1949–53

Type	Percent per dollar volume or amount per ton				
	1948–49	1949–50	1950–51	1951–52	1952–53
Mixed goods	8.223 percent.	5.67 percent.	14.0 percent.	$3.8448 per ton.	$2.75 per ton
Materials	1.87 percent.	1.883 percent.	2.72 percent.	1.483 percent.	0.88779 percent.
Superphosphate	(1)	(1)	$1.00 per ton.	(1)	(1)
Potash	(1)	(1)	$3.00 per ton.	$2.00 per ton.	$2.00 per ton.

1 Included with materials.

3. M. F. C. has provided a dependable source of fertilizer of dependable quality. Its manufacturing operations were especially helpful during periods of shortages the last 10 years by assuring patrons a fair distribution of scarce materials at reasonable prices. In 1951–52, for example, phosphate fertilizers were scarce because of a shortage of sulphuric acid. Because M. F. C. had earlier determined to manufacture fertilizer, reports of the State department of agriculture indicated that 60 percent of all the phosphate fertilizer sold in the State was supplied by M. F. C. in the 41 counties which it served.

4. M. F. C. has upgraded the quality of fertilizer available to farmers. State inspection reports indicate that it has led the field in putting more plant food nutrients in its fertilizers in relation to guaranteed analyses. M. F. C.'s overrun policy in mixing has placed extra plant food in its Clover brand fertilizer—valued in 1950–51 at about $90,000, or $3 a ton. M. F. C. has also created a demand for lime base nonacid-forming fertilizers. Prior to the war, open formulas for fertilizer mixtures were used, but it was not possible to stay on this basis during periods of shortages of materials. M. F. C. has also encouraged farmers to purchase those fertilizers which will give them the greatest value-in-use.

5. M. F. C. has encouraged local cooperatives to provide fertilizer and lime-spreading services for farmers, or to rent spreading equipment to them.

Footnotes for Table 6.

1 These are the approximate amounts which M. F. C. would have to pay for superphosphate purchased from other manufacturers, f. o. b. their plants. Although a shortage of supplies existed during the period, estimated costs of purchasing from nearby manufacturers were used. In addition, M. F. C. would have had to pay transportation costs to its Canton plant (see footnote 3).

2 Prorata share allocated to acidulating plant on the basis of volume.

3 These transportation savings represent the freight rates (plus Federal tax) which M. F. C. would have had to pay on superphosphate shipped from Hattiesburg, Miss.—the nearest available manufacturing plant to Canton, Miss., for use in mixing. Of the amount manufactured by M. F. C. only the following amounts were used in mixing: 15,871 tons in 1953; 9,657 tons in 1952; and 11,908 tons in 1951. Of the remaining amounts sold for direct application, a large portion was distributed in the Canton area; therefore additional transportation savings also would have been realized on this volume.

4 Transportation and total savings per ton computed on the amounts used in mixing.

5 Rated capacity of plant is 120 tons per 8-hour day. Total production each year was low due to lack of sulfuric acid.

Although the present status of M. F. C. has been largely built on fertilizer services, there appear to be a few possibilities for further improvements.

1. Develop more effective merchandising methods at both the regional association and the local co-op level. More product campaigns, contests, and awards might be sponsored for managers who handled specified volumes or realized specified increases over the previous year.

2. Consider building one or two more small mixing plants—giving special attention to local and transportation factors. Plants of perhaps 10,000 to 15,000 tons a year capacity distributing within a radius of about 50 miles should result in more efficient transportation from plant to farms. Bulk distribution of fertilizer from plant to farm is rapidly increasing in many areas, and such a development in Mississippi would require additional plants. The ability to load fertilizer at the plant and distribute it quickly are important factors in bulk spreading. Also, availability to manufacturers of superphosphate, transportation costs from their plants to M. F. C. plants, and consumption in various areas, are important factors to consider in determining the location of additional plants.

Constructing a small superphosphate plant in conjunction with a mixing plant in the northeastern part of the State is another possibility.

3. Study the advisability of certain cooperatives distributing anhydrous ammonia by tank truck from bulk plants to farms. If undertaken, provide a wholesale service and assist these co-ops establish operations on a sound basis.

Seed Operations

PROCURING quality seed for local associations and their farmer members has always been an important service of M. F. C. A seed department manager supervises all seed operations. Most of the seed moves through its warehouse and processing plant at Canton, with the remainder through the Tupelo warehouse. Direct shipments are billed through the State office.

Purchasing and Distribution

M. F. C. has always acquired as much of its seed as possible from local growers, if their seeds met quality standards. For those seeds which had to be purchased out of the State, M. F. C. has relied on cooperative marketing organizations as major sources of supplies. It has bought hybrid seed corn and lespedeza from the Cotton Producers Association, Atlanta, Ga.; hybrid corn and white Dutch clover from the Louisiana Agricultural Supply Association, Baton Rouge; crimson clover, fescue, and hybrid corn from Tennessee Farmers Association, Nashville; lespedeza and crimson clover from Arkansas Farmers Association, North Little Rock; and Ladino clover, hairy vetch, rye

grass, and red clover from Pacific Supply Cooperative, Walla Walla, Wash.

M. F. C. in turn has been the major supplier of common lespedeza for other regional cooperatives in the area and of wild winter peas and white Dutch clover for some of them.

M. F. C. also contracts with farmers to produce locally grown hybrid seed corn. Farmers obtain seed from breeders and M. F. C. processes and markets their seed corn production at a negotiated price. M. F. C. thus gets adapted seed at no greater cost than from other distributors and the local producers generally are assured of prices in line with quality. If M. F. C. cannot take their corn, then it will sell it for the farmers for a small commission. Processor-buyers furnish most of the common lespedeza seed.

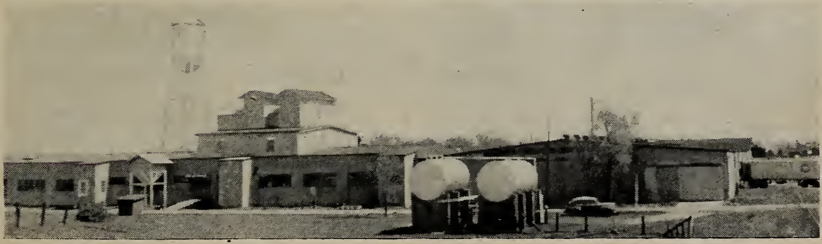
M. F. C. conducts its daily operations similar to other seed wholesalers. It anticipates the volume which may be required of its local associations and their farmers, and then purchases various amounts at such times as would appear most advantageous. M. F. C. thus takes most of the risk from its local member associations.

When seed is acquired from out of the State, representative samples are always taken from each lot. One is tested in M. F. C.'s laboratory; one is sent to the State college; and one goes to a commercial laboratory for testing. M. F. C. only puts its Clover brand label on those seeds processed in its own plant. About 95 percent of the seed handled at the Canton warehouse moves by trucks—many of them belonging to local co-ops which pick up seed along with fertilizer.

M. F. C. serves as an outlet or market for high quality seed, mostly through its local cooperatives. If the locals don't need the amount M. F. C. has, the surplus is sold outside. A number of local cooperatives ask M. F. C. to help market seed their local farmers do not need. The county association at Port Gibson is the only one marketing seed direct.

When M. F. C. sells seed out of the State, it pays a patronage refund to any regional cooperative purchasing it if the gross margin justi-

M. F. C.'s seed plant and warehouse at Canton, formerly a furniture factory, covers approximately two acres.

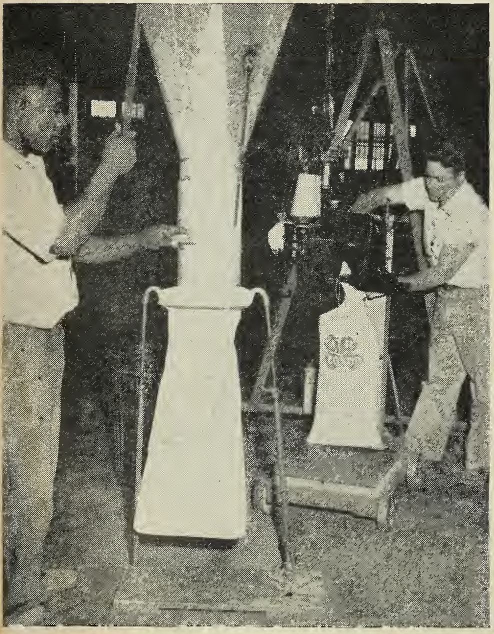


fies such a refund, but no refund is paid on seed sold at distributor prices. The member cooperatives or farmers marketing the seed through M. F. C. do not receive refunds, but they generally receive prices as high or higher than they could get elsewhere. If it becomes necessary to market large quantities of locally produced seed, M. F. C. may use a pooling plan with the growers.

Seed Processing

M. F. C. has long realized the need for better seed processing facilities in the State. It has encouraged installation of small seed cleaning plants in about a dozen counties. Although these plants served a useful purpose in stimulating production of seeds for market and home use, the State needed at least one large plant to completely process (clean, dry and treat) its various kinds of grasses, legumes, and field crop seeds. Adequate plants were available for cotton seed.

Bagging seed at the Canton plant.



In 1950 M. F. C. purchased a large furniture factory at Canton, Miss., covering approximately 2 acres, converted it into a warehouse, and installed one of the most complete seed processing plants in the South. Its seed laboratory can furnish a complete analysis on all types of seeds. The State Crop Improvement Association approved the plant for processing, bagging, and tagging certified seed. Later a seed corn drying plant was added. Because of the size of the warehouse, other seed can be taken from combines and spread out thinly on the floor to dry.

Cost value of the warehouse, land, and plant on May 31, 1953, was $150,491 and its depreciated value was $134,579. The equipment represented about $57,500 of the cost, and the seed drying plant and equipment represented about $11,500. The main kinds of processing equipment include: Four 7-screen Clipper cleaners, two dodder mills, one gravity table, three disc cylinder separators, one other grain separator and cleaner, a huller and scarifier, a scalper and aspirator, two sewing machines, an air compressor, a moisture tester, and other miscellaneous equipment.

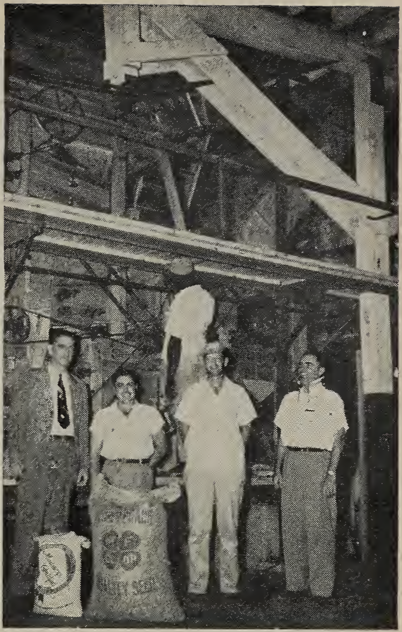
The processing equipment is installed on platforms at four levels with all storage space on the ground

floor. Four main elevators each with 5 spouts and all equipment are controlled from the main floor. All spoutings are metal and the hoppers are lined with metal and constructed at a 45-degree angle to permit all types of seed to flow by gravity. An air compressor is available for cleaning the equipment. The scarifier is mounted on coasters so that it can be rolled under the separator. The treater and sewing machines are also on coasters.

The corn drier consists of six bins through which air heated by a gas burner is forced. It can dry 600 bushels per bin in a 48-hour period. The corn is dried to a minimum of 14 percent moisture and then hand graded, shelled, and run through a cleaner, rocket grader, link grader, gravity table, treater, and finally to the bagging and sewing machine.

Growers can store seed placed under Government loan in approximately 15,400 square feet of floor space designated in 1951 as a bonded warehouse.

They can obtain a loan based on the support price of the seed and receive negotiable warehouse receipts, facilitating seed marketing. A minimum of about 600 tons can be stored in this space. Seed can be insured at the option of the patron at a small charge per month. At the request of farmers, M. F. C. puts analysis tags on the seed at an extra charge. The warehouse became bonded too late for seed to be stored under loan in the fall of 1951 but it did store 412,603 pounds in the 1952–53 fiscal year. Representatives of M. F. C. believe that this will be a good service to growers



Seed processing equipment, mounted on three-level platforms, is controlled from the ground floor in M. F. C.'s plant at Canton.

and that seed stored under the loan will help M. F. C.'s wholesale program—from the standpoint of savings on transportation and by having seed available when it is needed.

Customer-owned seed brought in to be custom cleaned has automatic free insurance for 15 days from the time it is received in the plant. Also free storage is granted during this 15-day period. All seeds are stored in separate lots. A schedule of rates and storage charges in effect in 1952 is shown in Appendix table 8.

Quantity of seed processed has

Table 8.—Quantity of seed cleaned and cleaning receipts of Canton plant of Mississippi Federated Cooperatives (A. A. L.) during fiscal years ended May 31, 1952 and 1953

Seed	1951–52		1952–53	
	Pounds	Cleaning receipts	Pounds	Cleaning receipts
Clover	365, 299	$7, 597	304, 724	$7, 875
Lespedezas	5, 863	125	23, 429	566
Fescues	59, 488	1, 522	448, 466	15, 608
Grass—rye and Bali	15, 211	374	166, 366	5, 422
Vetch	3, 990	17	4, 070	34
Wild winter peas	128, 297	661	413, 493	2, 020
Other peas	16, 250	68	17, 584	72
Oats, peas, and vetch	459, 762	3, 771	349, 447	2, 671
Subtotal	1, 054, 160	14, 135	1, 727, 579	34, 268
Oats	866, 655	4, 027	1, 028, 256	5, 378
Soybeans	130, 385	398	85, 786	263
Corn	307, 160	4, 632	342, 851	4, 032
Wheat	3, 508	11	12, 702	41
Miscellaneous seeds			9, 978	87
Cottonseed—drying			197, 500	296
Corn cobs			(28 T.)	226
Subtotal	1, 307, 708	9, 068	1, 677, 073	10, 323
Total	2, 361, 868	23, 203	3, 404, 652	44, 591

increased greatly since acquiring this plant—from 1 million pounds in 1950–51 to 3.4 million pounds in 1952–53. (See table 8.) The increased production of fescue in the Delta and more rye grass, wild winter peas, and oats were responsible for the great increase the past year. Field grains such as oats and corn have constituted a large volume each year.

In addition to the superintendent, who has 3 assistants and some office help, the plant employs from 8 to 25 laborers. During the heavy seasons two shifts are operated.

Volume and Operating Results

Seed purchased by patrons has been above a million dollars 4 of the last 5 years compared with only $221,474 in the 1935–36 fiscal year. (See table 9.)

Gross margins have ranged from about 4 to 6 percent most years. Net margins for the seed department after allocation of general expenses were not determined. The seed cleaning plant in 1952–53 had receipts of $45,547 and a net loss of $3,085 after depreciation and State office overhead expenses. (See table 10.)

The quantity of legume and grass seed purchased by patrons has ranged from 5 million to 6 million pounds during the last 3 years. (See table 11.) The volume of field

Table 9.—Dollar volume and gross margins for seed handled by Mississippi Federated Cooperatives (A. A. L.), 1947–48 to 1952–53

Year	Patrons purchases	Gross margin	
		Amount	Percent
1947–48	$734,180	$42,892	5.84
1948–49	1,171,641	55,301	4.72
1949–50	981,827	58,619	5.97
1950–51	1,338,467	96,511	7.21
1951–52	1,345,537	51,787	3.85
1952–53	1,064,026	35,185	3.31

crop seeds consisting of corn, oats, and soybeans was from 41,000 to 57,000 bushels; and cottonseed has ranged from 639 to 837 tons. There has been a big increase in purchases of rye grass and other grasses, and a substantial decrease in Austrian winter peas and vetches. Grasses totaled over 2 million pounds in 1952–53 compared with 1.3 million pounds in 1950–51 and only 200,000 pounds in 1949–50.

Patronage refunds on seed purchases by patrons have been declared at the same rate each dollar of volume as those for all supplies handled by the State office purchasing department. During the last 6

Table 10.—Operating statement of Canton seed cleaning plant of Mississippi Federated Cooperatives (A. A. L.) during fiscal years ended May 31, 1951–53

Items	1951	1952	1953
Revenue from cleaning, storing, and other services	$17,927	$24,472	$45,547
Expenses:			
Salaries and wages	7,780	13,975	27,111
Employees bonus and tax	0	0	500
Analysis	230	1,467	0
Depreciation	1,786	5,839	6,396
Insurance	429	662	1,482
Maintenance and repairs	2,070	1,789	1,483
Miscellaneous	1,354	423	552
Office and postage	113	240	199
Heat, light and water	1,640	2,029	2,215
Social security taxes	210	377	776
Telephone and telegraph	235	300	173
Repairs to sprinkler system	1,714	0	0
State office overhead	513	692	7,070
Ad valorem taxes	([1])	([1])	675
Total expenses	18,074	27,793	48,632
Net margins	(−147)	(−3,321)	(−3,085)

[1] Included in miscellaneous.

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Table 11.—Quantity of seed purchased by patrons from Mississippi Federated Cooperatives (A. A. L.) during fiscal years ended May 31, 1951–53

Item	1951	1952	1953
		Tons	
Cottonseed:			
Breeders	280.2	432.4	276.0
Other	474.9	299.8	363.0
Delinted	81.7	62.1	0
Total tons	836.8	794.3	639.0
		Bushels	
Corn	10,971	12,310	12,903
Oats	26,595	21,881	36,186
Soybeans	5,943	6,547	7,547
Total bushels	43,509	40,738	56,636
		Pounds	
Crimson clover	229,157	236,103	280,203
Ladino clover	73,248	51,930	23,478
Red clover	78,715	52,380	33,520
White Dutch clover	58,711	62,393	31,508
Miscellaneous clover	63,488	120,656	110,700
Fescue	198,397	207,613	53,026
Dallis grass	3,874	101,449	13,849
Rye grass	972,950	1,429,840	1,773,000
Sudan grass	102,900	198,994	231,078
Lespedeza:			
Common	104,791	78,453	0
Kobe	653,933	568,890	710,547
Korean	123,204	62,900	130,540
Sericea	200,123	0	0
Austrian winter peas	1,159,800	433,285	152,100
Dixie Wonder peas	45,700	14,900	0
Wild winter peas	395,020	179,800	646,276
Common vetch	450,090	280,696	111,161
Hairy vetch	967,100	641,595	404,413
Vetch and peas	17,478	61,100	0
Miscellaneous seed	137,196	216,551	417,332
Total pounds	6,035,875	4,999,528	5,122,731

years these have been as follows:

Year:	*Percent*
1947–48	1.7432
1948–49	1.87
1949–50	1.883
1950–51	2.72
1951–52	1.483
1952–53	0.88779

During the fiscal years ending in 1948 and 1949, a special refund of $5 a ton was declared on Delta Pine cottonseed. In 1950 it was $2.50 a ton but since then no special refund has been paid.

Benefits and Possible Improvements

In appraising the value of cooperative purchasing of seed, the net operating savings or patronage refunds are minor compared with the returns farmers receive from planting high quality and adapted seed. Their total expenditures for seed each year are relatively small and even if high rates of refunds

were paid, the amount for each farmer would generally be small.

1. Acquiring top quality seed for local cooperatives has been one of the outstanding accomplishments of M. F. C. It also helped write a seed law for Mississippi to prevent the State from becoming a dumping ground for poor seed.

2. Installing a complete seed processing plant has helped local growers improve the quality and returns from their seed. Also, the bonded warehouse is one of only three available in the State for processing and storing seed placed under the Government price support or loan program.

3. M. F. C. has conducted an educational program with other agricultural agencies to acquaint farmers with the value of good quality, pure seed. Although there has not always been enough noxious weed-free seed available, M. F. C. has shown farmers just what kind of seed they were buying. These activities have increased production and use of better seed.

M. F. C. can still make improvement in its seed operations. Suggested are the following:

1. A fieldman to work with local cooperatives could help improve the seed operations of both M. F. C. and the locals. Close coordination is needed if M. F. C. is to procure an adequate supply of seeds for them and yet at the same time not carry over large inventories and assume unnecessary risks of price declines. A fieldman could encourage local managers to do more early estimating of their needs or advance ordering and taking of early deliveries. He could help them in procuring supplies, especially from other cooperatives in the system with surplus seed.

2. Additional equipment for the seed plant including another gravity table; a dryer for seeds other than corn; and an outside elevator and scales for handling the increased volume coming to the plant in bulk, should be considered.

3. Marketing on a pool basis surplus seed of individual growers and member cooperatives should be studied. Increasing seed production at Canton will likely result in some demand for M. F. C. to render this service.

Miscellaneous Supplies

Operating Methods

M. F. C. has made considerable progress in the last three years in handling miscellaneous farm supplies and equipment. Principal items include insecticides and "heavy hardware" such as fencing, roofing, spreaders, tools, twine, and dusters. Most of the time, these supplies have been supervised by a department manager who also devoted 2 or 3 months each year to auditing local associations.

M. F. C. purchases most supplies from United Cooperatives, Inc., Alliance, Ohio. M. F. C. stores them in its Canton and Tupelo warehouses until ordered by local

cooperatives. It buys steel products in carlots and encourages local co-ops to take split or pool cars if they have sufficient volume. Locals pay competitive wholesale prices for these supplies and retail them at prevailing market prices in their communities.

Volume and Types Handled

Total volume of miscellaneous supplies handled in 1935–36 was only $34,361. It was almost $70,000 in the fiscal year ending in 1949 but thereafter increased markedly—reaching a high of $743,873 in 1951. (See table *12*.) Gross margins have been from $40,000 to a little over $50,000 each of the last 3 years—averaging from 6.9 to 7.9 percent of dollar volume.

Patronage refunds in percent of dollar volume on miscellaneous supplies by M. F. C. during the last 6 years were the same as for seeds:

Year:	Percent
1947–48	1. 7432
1948–49	1. 87
1949–50	1. 883
1950–51	2. 72
1951–52	1. 483
1952–53	0. 88779

One exception was M. F. C. Clover brand cotton dust which had a refund of $33.15 a ton in 1951–52.

Over half of the miscellaneous supply volume recently has consisted of insecticides—mostly cotton poisons. (See table *12*.) M. F. C. now obtains about 40 percent of its insecticide requirements from the Magee Cooperative Gin, Magee, Miss., which recently built a $100,000 insecticide plant and manufactures cotton poisons for M. F. C. under its Clover brand; about 15 percent from United Cooperatives, Inc.; and the remaining 45 percent from four or five other suppliers.

Gross margins realized by M. F. C. on insecticides have varied widely—from 3 to 9 percent the

Interior view of M. F. C.'s warehouse at Tupelo for storing seed and miscellaneous supplies.

Table 12.—Volume of miscellaneous supplies handled by Mississippi Federated Cooperatives (A. A. L.) and gross margins during fiscal years ended May 31, 1949–53

Items	1949	1950	1951	1952	1953
			Purchases by patrons		
Bags	$366	$3, 523	$4, 068	$11, 139	$9, 966
Heavy hardware	22, 960	71, 414	184, 753	214, 768	199, 569
Inoculants	13, 987		10, 884	9, 522	6, 466
Insecticides	16, 599	159, 868	534, 368	389, 813	184, 894
Oil and antifreeze			410	1, 414	7, 620
Other oil products					46, 129
Tires and tubes	9, 879	799	9, 390	22, 599	28, 898
Stock tanks and bins				12, 864	8, 537
Other	3, 507	5, 426			
Total	67, 298	241, 030	743, 873	662, 119	492, 079
			Gross margins		
Hardware	$2, 000	$6, 545	$20, 977	$30, 372	$21, 127
Percent	8. 7	9. 2	11. 4	14. 1	10. 6
Insecticides	$736	$14, 724	$27, 385	$11, 578	$9, 332
Percent	4. 4	9. 2	5. 1	3. 0	5. 0
All other supplies	$4, 885	$(−6)	$2, 839	$10, 101	$8, 651
Percent	17. 6	[1]	11. 5	17. 6	8. 0
Total	$7, 621	$21, 263	$51, 201	$52, 051	$39, 110
Percent	11. 3	8. 8	6. 9	7. 9	7. 9

[1] Less than 0.05.

last 5 years. The margin was low in 1952 because of an inventory loss when the price broke from 13 cents to 8 cents a pound on one item.

M. F. C. has made some progress the past 4 years in handling miscellaneous hardware and equipment. Volume increased from $23,000 in 1949 to around $200,000 in 1952–1953. Gross margins have gradually improved each year until they reached a high in 1951–52 of $30,372, or 14.1 percent of dollar volume. They declined, however, to 10.6 percent in 1952–53.

The principal types of merchandise included under "heavy hardware" were field fence, galvanized roofing, nails, baling ties, twine, garden tractors, lime and fertilizer spreaders and parts, small tools, dusters, sprayers, seed sowers, and poultry and dairy supplies. M. F. C. obtained practically all of these items through United Cooperatives with the exception of the lime and fertilizer spreaders and garden tractors. Other types of supplies handled were oil products, antifreeze, and stock tanks and bins.

Benefits and Possible Improvements

M. F. C. has obtained dependable sources of good quality miscellaneous supplies for local cooperatives and their members. And many of them—especially insecticides—are now being acquired from other cooperatives, thus enabling M. F. C.

to share in manufacturing or additional wholesale savings. Local managers thus may devote their time to distribution rather than to seeing the salesmen of many companies.

Through United Cooperatives, Inc., M. F. C. obtains steel products with specification tags. United Cooperatives samples each shipment and makes a laboratory analysis to verify specifications; and carefully checks all other items for quality and ability to give farmers maximum value-in-use.

Although progress has been made in handling miscellaneous supplies and equipment, M. F. C. has not fully developed this type of business. While the last 2 years miscellaneous supplies volume was only 10 to 14 percent of all farm supply volume, exclusive of fertilizer, gross margins from it constituted from 18 to 22 percent of the total without a great deal of expense, indicating more emphasis should be placed on this part of the business.

The following suggestions for improvement are offered:

1. Put a well-qualified full-time man in charge of this department and employ one or more fieldmen who would devote part of their time to helping local cooperatives display and merchandise such supplies. In many cases, such a fieldman would need to help the locals improve or remodel their facilities for satisfactory displays and merchandising programs.

2. Expand service for members by carrying a wider variety of farm production supplies and equipment. Many local cooperatives indicated they would handle a larger volume of such items if they were available from M. F. C. at all times and if M. F. C. could provide more specialized services on them. Perhaps more heavy items including farm tools and dairy and poultry equipment should be handled. A few local cooperatives are handling veterinary supplies and if they prove successful, M. F. C. may help them by purchasing such items under statewide contracts.

M. F. C. should also investigate irrigation equipment. There has been considerable increase in the farm use of portable sprinkler systems with aluminum pipe the last two years. As a result one member association, after contacting several companies, took on a line of equipment and became a district distributor for several counties in the area.

The volume of tires should increase as locals get satisfactory tire-changing equipment, and as they install bulk oil plants with delivery service to farmers.

3. Assist local cooperatives in determining what types and how many farm supply and equipment items to handle. With such a variety of merchandise available, it is easy to overstock and get obsolete merchandise as many cooperatives have a limited space. Local co-ops in Mississippi should restrict their miscellaneous supplies to those used in farm production. They should not undertake to handle a regular line of farm machinery until they become strong enough to finance and service it so as to benefit patrons.

Feed Operations

Present Service

INCREASE in livestock numbers in Mississippi in recent years has caused farmers to purchase much more feed through commercial channels. Local cooperatives began to handle a larger volume and M. F. C. provided a wholesale feed service for them. Most of the feed has been handled on a brokerage basis with 3 to 4 companies, with many locals dealing directly with mills. The rapid increase in feed handled the last 4 fiscal years is indicated in table 13.

In December 1952, M. F. C. signed a State feed distributorship with M. F. A. Milling Co., Springfield, Mo. Three locals began ordering feed in railroad carlots and by the spring of 1953, 20 locals were participating in the program.

This arrangement should prove an important help in developing a larger volume among cooperatives in Mississippi. The M. F. A. Milling Co., organized 28 years ago, is an efficient and successful regional cooperative organization. Its mills at Springfield and Aurora, Mo., are producing feed at the rate of about 375,000 tons a year. Its manufacturing costs have been among the lowest among cooperative mills in the United States. M. F. A.'s research and feed formulation program is under the direction of an experienced animal nutritionist and it maintains a modern feed laboratory and research farm. It has been supplying a large volume of feed to farmers' regional associations in Arkansas and Tennessee for some time, and milling-in-transit privileges should enable it to serve all of Mississippi efficiently.

Additional Possibilities

M. F. C. can be of further service to members principally by getting those not now handling feed into the new program and by helping develop more feed volume in all local associations.

Specialized field training of local managers by representatives of M. F. A. Milling Co. is developing better feed programs. Many managers have had little feed experience and their main interests are in other supplies. Training programs or feed schools to give information on the kinds of feed handled, their uses,

Table 13.—Volume of feed handled by Mississippi Federated Cooperatives (A. A. L.) and gross margins for fiscal years ending May 31, 1950–53

Basis of handling	1950	1951	1952	1953
On a purchase-and-sales basis	$174,300	$222,263	$61,442	$398,371
Gross margin	2,200	2,291	1,792	3,811
On a brokerage basis (estimated)	250,000	500,000	675,000	1,000,000
Brokerage	1,073	2,035	2,970	4,925

and methods of merchandising should help greatly in increasing the feed business. Local managers and employees need such information if they are to be sold on their products and if they are to recommend feeds that will best serve their members. Perhaps some type of incentive would help, such as contests and small awards, or at least recognition for building volume.

Wholesale distribution needs the development of local volume because the most economic system involves carlot shipments direct to local associations—either in full cars to a single association or pooled cars to two or more associations, with farmers taking delivery direct from the car. Such a system should be preferable to shipping feed to M. F. C.'s warehouses and trucking it out to locals as this would add to handling costs.[4]

Petroleum Products

Present Service

DURING the latter part of 1952, Mississippi Federated Cooperatives arranged with M. F. A. Oil Co., Columbia, Mo., to obtain refined fuels from its refinery at Memphis, Tenn. Then in November of that year the De Soto County Cooperative installed a bulk oil plant and employed a farm deliveryman. By February 1953 the Farmers Cooperative at Eupora also had added a bulk plant and delivery service. Before these developments, local associations had handled small amounts of lubricating oil and tires which M. F. C. acquired through United Cooperatives, Inc.

Mississippi Federated Cooperatives has now obtained a dependable source of oil products for its members in north Mississippi; and it can share in refining and production savings in proportion to its patronage without making large initial investments of capital.

The M. F. A. Oil Co. operates a number of local bulk stations and tank trucks in southwestern Missouri; a refinery at Chanute, Kans.; a refinery at Memphis, Tenn., which is operated by a subsidiary known as Delta Refining Co.; several highway transports; and produces a small amount of crude oil. During 1952–53 M. F. A. modernized its Memphis refinery by installing catalytic cracking facilities to produce more and higher quality gasoline from each barrel of crude oil.

Delta Purchasing Federation (A. A. L.), Greenwood, Miss.; Tennessee Farmers Cooperative, Nashville; and the Arkansas Farmers Association, Little Rock; are also obtaining fuels from M. F. A. Oil Co.

While only the northern half of Mississippi can be served directly from the Memphis refinery, no doubt arrangements can be made by

[4] The success of MFA Milling Co.'s manufacturing and distributing program has been largely based on low-cost operations all the way through—getting the feed out to the farmer at a minimum cost so that he can make the maximum amount from its use.

M. F. A. Oil Co. to supply the southern half through exchanges or purchases from refineries or terminals located on the Gulf. For the present, however, the development of local petroleum services will probably occur mostly in the northern half of the State since it has the greatest farm consumption of petroleum products.

Additional Possibilities

M. F. C. can develop its cooperative petroleum service by helping locals determine when they have sufficient potential and demand to add a bulk plant; by aiding them in obtaining proper facilities; and by conducting schools for tank truck servicemen and other employees on efficient operations and product information.

If a number of locals add bulk plants, M. F. C. might study the prospects of operating transports from refinery to local plants. Some regional co-ops have found this a beneficial service for member associations.

Warehousing and Trucking Operations

M. F. C. has a warehouse at Canton and one at Tupelo, Miss. The Canton facility contains seed processing equipment and mainly handles and stores seed. It also stores miscellaneous supplies and equipment.

The Tupelo warehouse, with 7,680 square feet of space and a 9-foot loading platform covered with a shed 24 feet in length, was built in 1951 at a cost of $29,497.

During 1952–53, the Canton warehouse handled $803,456 worth of supplies and the Tupelo warehouse, $202,545. The remaining $3,795,823 came through the State office purchasing department. After allocating M. F. C. general overhead expenses, each of the warehouses had small losses.

M. F. C. owns 2 large trucks and 3 trailers, a stake truck, a van trailer, and a pickup truck, all at Canton. A one-half-ton truck is located at Corinth. Total cost of this equipment as of May 31, 1953, was $13,861. In addition M. F. C. has leased as many as 7 trucks. During slack seasons some supplies are occasionally shipped by motor freight lines.

About 95 percent of the seed and 75 to 80 percent of the fertilizer moves by truck from the Canton warehouse to local associations. Trucks of the local co-ops handle a large proportion of these items. Where materials move direct to locals, the M. F. C. State office issues direct trucking orders to the Canton warehouse, and the warehouse personnel then handles the actual trucking operations. After sufficient orders accumulate, trucks go out on routes to the north and south of Canton.

Revenue from trucking operations ranged between $14,336 and $20,427 in the last 3 years and operations broke about even. (See table 14.)

The new warehouse at Tupelo fulfilled one of the recommendations

of local managers and helped improve M. F. C. services. Several indicated a need now for improving trucking services from both warehouses—particularly on less-than-carlot orders.

Table 14.—Trucking operations of Mississippi Federated Cooperatives during fiscal years ended May 31, 1950 through 1953

Items	1950	1951	1952	1953
Revenue: From charges to other departments	$4,457	$18,037	$19,508	$14,250
Expenses:				
Gasoline, tires, etc	1,808	7,473	9,278	6,203
Labor	1,698	4,694	4,385	3,213
Drivers expenses		392	205	250
Repairs and maintenance	744	1,593	3,239	1,551
Depreciation	1,188	2,523	3,200	3,026
Social security taxes		120	120	93
Total	5,438	16,795	20,427	14,336
Net margins or loss	(−981)	1,242	(−919)	(−86)

Experience With Retail Branches

FOR many years M. F. C. operated a few branch warehouses to serve as retail farm supply stores for nearby farms, and to provide wholesale services to local cooperatives.

Their locations, total retail sales, and net margins from 1932 through 1946, when retail operations were discontinued, are shown in table 15.

Although some retail branches incurred operating losses and others were successful, M. F. C. found that organizing independent county cooperatives under its supervision contracts was a better system. By 1946–47, all retail branches had been converted to locals.

Cotton Marketing Operations

MISSISSIPPI Federated Cooperatives (A. A. L.) began a cotton marketing and loan service for the growers in the State in 1940.[5] It markets cotton directly for some growers in the vicinity of Jackson. Member county cooperatives receive cotton for M. F. C. for a commission but do not record the cotton volume as their marketing sales. Therefore all cotton sold by M. F. C. is marketed for individuals. Part II of this bulletin discusses cotton receiving methods of the county associations.

[5] The Mississippi Cooperative Cotton Association (A. A. L.), which resulted from the reorganization of the Mississippi Farm Bureau Cotton Association in 1929, ceased operations in 1940 due to financial difficulties.

Table 15.—Retail sales, net margins, and location of retail branch warehouses operated by Mississippi Federated Cooperatives (A. A. L.), 1932 through 1946

Fiscal year ended in—	Retail sales	Net margins	Location of warehouses
1932	(1)	(1)	Columbia.
1933	(1)	(1)	Canton and Columbia.
1934	(1)	(1)	Do.
1935	$106,622	$2,519	Tupelo, Laurel, Kosciusko, Brookhaven.
1936	157,842	1,164	Do.
1937	156,774	(−1,072)	Tupelo, Laurel, Brookhaven.
1938	146,758	(−896)	Tupelo, Laurel.
1939	181,744	1,844	Do.
1940	198,403	3,777	Do.
1941	244,482	3,345	Tupelo, Laurel, Forrest, Coffeeville.
1942	450,880	15,440	Tupelo, Laurel, Canton, Coffeeville, Grenada.
1943	853,879	18,971	Tupelo, Laurel, Canton, Coffeeville, Grenada, Booneville.
1944	638,331	808	Tupelo, Canton, Coffeeville, Grenada, Booneville.
1945	585,300	(−12,400)	Canton, Coffeeville, Grenada, Booneville.
1946	481,224	14,665	Do.

[1] Not compiled separately from wholesale operations.

Cotton Pools and Services

M. F. C. operates four types of pools, giving the individual farmer his choice in disposing of his cotton crop. A later section of the bulletin comments on financing cotton operations. A brief explanation of the four pools follows:

Government Loan Pool

The grower uses this pool when he wishes to obtain a Commodity Credit Corporation loan. He receives the loan value at the time he delivers the bonded warehouse receipts and Government classification cards to the local association. The local draws a draft on M. F. C. for the amount of the loan and M. F. C. then borrows the same amount of money from the Commodity Credit Corporation, using the pledged cotton as security. Figure 6 illustrates the punch card used in machine tabulations of loan cotton operations.

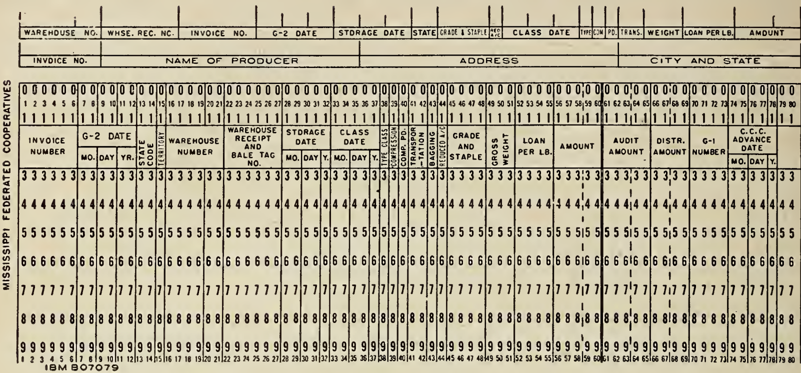
Fixed or Purchase-and-Sale Pool

This pool permits farmers to sell their cotton to M. F. C. on the spot. Local associations play no part in it. Growers actually deliver most of this cotton to the State office of M. F. C., but in some cases they bring a warehouse receipt and a sample from each bale. M. F. C. generally sells this cotton immediately provided the volume and market are satisfactory. Otherwise, as a protective measure, the cotton is hedged.

Factor Pool

Here farmers place their cotton with M. F. C. to be sold immediately from its marketing tables at

Figure 6.—Punch card used in machine tabulation of loan cotton operations.



the highest possible market price, or under conditions or prices they specify. This pool is quite similar to the fixed or purchase-and-sale pool except that M. F. C. does not have any investment in the cotton and sells it before settling with the producers.

The farmer may obtain a reasonable advance on cotton placed in the factor pool when he delivers the cotton to the local association. This advance and the marketing, financing, and warehousing charges are deducted before making final settlement.

Optional Pool

Under this pool, the grower delivers his samples and warehouse receipts to M. F. C., to be held for further instructions from him. The grower can offer his cotton for sale at a specified price or at a specified later date, or he can transfer it to the Government loan pool. The grower also can receive a cash advance from M. F. C. while the cotton is in the optional pool. He either agrees that M. F. C. may place his cotton under Government loan or he executes loan documents that M. F. C. can use to protect itself against any losses from price declines while the cotton is in the optional pool.

Classing and Selling Cotton

M. F. C. maintains a central classing office and an experienced staff for marketing cotton. Market outlets for cotton include mainly large and medium size cotton merchants in Jackson, Miss.; Memphis, Tenn.; and New Orleans, La. Sales of cotton are made for cash and those to buyers outside of Jackson are usually made by sight draft with proper collateral attached (bill of lading or warehouse receipts).

Service Charges and Deductions

In the fall of 1952 deductions per bale for handling C. C. C. 1952 loan cotton are shown in table 16.

In 1951, the charges made by M. F. C. and local receiving cooperatives totaled $1.65 per bale and the warehouse loan paper signing charges were 85 cents, or a total of $2.50 a bale.

Volume and Operating Results

Officials of M. F. C. look over samples of cotton being marketed for growers.

Since M. F. C.'s marketing program is closely related to the Commodity Credit Corporation loan and price support program, the annual volume of cotton marketed through M. F. C. has varied greatly depending upon the relationship between the market and the support price of cotton.

Table 17 indicates the bales and value of cotton in each type of pool for the fiscal years ended May 31, 1941 to 1953, inclusive. The volume marketed in the merchandise pool ranged from a low of 6,113 bales in 1950–51 to a high of 49,779 bales in 1945–46. (The merchandise pool included any amounts carried over in inventory from previous years rather than just the current crop received for each specified year.) The quantity in the Government loan pool ranged from a low of 102 bales in 1950–51 to a high of 120,977 bales in 1948–49. During the 1952–53 fiscal year, 30,636 bales were placed in the Government loan through M. F. C. compared with 32,593 bales in 1951–52 and 4,000 bales in 1950–51. (See footnote 2, Table 17 for additional comments.)

Table 16.—Service charges and deductions by Mississippi Federated Cooperatives (A. A. L.) and its member co-ops for handling Government loan cotton, 1952–53

Item	Amount per bale
M. F. C. service charge	$0.55
Local co-op service charge	.50
Bank exchange charge	[1].20
Insurance	.10
Interim interest	.10
Transportation of samples	.05
Classing	[2].25
Warehouse service charge and signing loan papers	[3]1.00
Total	2.75

[1] Omitted if final settlement is made from M. F. C.'s office and no advance has been made.
[2] Omitted if producer has a Government class card in making settlement at local co-ops.
[3] 10 cents more at a few points. A merchandising charge of 65 cents a bale is made when the cotton goes into the warehouse and 35 cents a bale is charged when the warehouseman signs the warehouse waiver to place the cotton in the Government loan. The 85 cents charge is refunded to the grower if the cotton is sold before released to C. C. C.

Table 17.—Cotton pool volumes and values for fiscal years ended May 31, 1941–53

Fiscal year ended May 31—	Merchandise pool[1]		Government loan pool[2]		Loan withdrawals [3]	
	Bales	Amount	Bales	Amount	Bales	Amount
1941	16, 807	$933, 548	4, 072	$189, 070	------	-----------
1942	14, 440	1, 369, 963	17, 214	1, 243, 813	4, 518	-----------
1943	22, 806	2, 374, 032	29, 849	2, 721, 592	7, 239	$660, 052
1944	15, 414	1, 605, 005	68, 991	6, 916, 624	4, 064	423, 184
1945	30, 481	3, 347, 582	68, 718	7, 714, 280	15, 870	1, 616, 587
1946	[4] 4	[4] 506				
	49, 779	6, 268, 054	5, 552	620, 524	13, 440	1, 508, 097
1947	[4] 11	[4] 1, 468				
	14, 692	2, 381, 695	6, 795	839, 298	3, 231	392, 631
1948	12, 407	2, 321, 743	13, 477	1, 964, 873	5, 631	821, 433
1949	19, 906	3, 357, 939	120, 977	19, 594, 069	12, 309	1, 993, 566
1950	20, 977	3, 252, 117	19, 222	2, 893, 375	2, 154	324, 220
1951	6, 113	1, 256, 710	[2] 102	[2] 23, 232	207	47, 146
1952	28, 567	5, 904, 727	[2] 2, 531	[2] 405, 137	7, 214	1, 154, 745
1953	15, 060	2, 814, 556	30, 636	5, 078, 676	480	79, 570

Year	Optional pool [5]— unsold		Factor pool [6]		Total	
	Bales	Amount	Bales	Amount	Bales	Amount
1941	------	----------	([7])	([7])	20, 879	$1, 122, 618
1942	------	----------	15, 526	$1, 145, 649	51, 698	3, 759, 425
1943	307	$15, 063	1, 142	110, 909	61, 343	5, 881, 648
1944	201	7, 054	([8])	([8])	88, 670	8, 951, 867
1945	51	1, 834	28, 344	3, 323, 288	143, 464	16, 003, 571
1946	210	17, 883	923	112, 708	69, 908	8, 527, 772
1947	124	11, 311	184	15, 425	25, 037	3, 641, 828
1948	85	4, 599	------	----------	31, 600	5, 112, 648
1949	2	115	------	----------	153, 194	24, 945, 689
1950	3	458	------	----------	42, 356	6, 470, 170
1951	1	115	------	----------	6, 423	1, 327, 203
1952	58	6, 697	------	----------	38, 370	7, 471, 306
1953	65	3, 266	------	----------	46, 241	7, 976, 068

[1] *Merchandise pool.*—Represents cotton actually marketed or sold by M. F. C. during the year. It includes cotton which has previously been in one or more other pools: (1) cotton which producers authorize M. F. C. to withdraw from the loan and sell; (2) cotton factored by M. F. C. during the fiscal year; (3) cotton purchased direct from producers by M. F. C. during the fiscal year; (4) cotton placed in Government loan through other agencies on note form but withdrawn and sold through M. F. C.; (5) cotton in M. F. C. prior season's loan that was marketed by M. F. C. during fiscal year; and (6) cotton in optional loan sold by M. F. C. during fiscal year.

[2] *Loan pool.*—Represents cotton received under C. C. C. loans through M. F. C. during fiscal years ended May 31. The amounts in 1951 and 1952, however, were apparently year end balances as the audit for 1953 reports that during the 1951–52 fiscal year a total of 32,593 bales were placed in the loan and only 2,531 bales remained in loan pools on May 31, 1952. Other reports of M. F. C. indicated that about 4,000 bales were placed in the loan in 1950–51 while the audit for May 31, 1951, showed 102 bales for the loan pool.

[3] *Loan withdrawals.*—Represents cotton from the current year's crop and from prior years withdrawn from Government loan through M. F. C. during fiscal year by producer or his agent. None of this went through the merchandise pool later.

[4] This was unsold cotton in the merchandise pool.

[5] *Optional pool.*—Represents amount of advances which M. F. C. has made on unsold cotton in this pool.

[6] *Factor pool.*—Represents cotton remaining unsold in factor pool at end of fiscal year. This goes into the merchandise pool the same or the following year.

[7] In merchandise pool.

[8] *CCC purchase pool.*—Represents cotton which C. C. C. bought outright.

Source: Annual audits of Mississippi Federated Cooperatives (A. A. L.).

Table 18.—Operating statement of the cotton marketing division, Mississippi Federated Cooperatives (A. A. L.) for fiscal years ended May 31, 1951–53

Item	1951	1952	1953
Cotton marketed for patrons in fixed or merchandise pool	$1, 256, 710	$5, 904, 727	$2, 814, 556
Less deductions:			
Payments to patrons	([1])	5, 779, 120	2, 843, 451
Cost of hedging cotton	([1])	6, 430	(−44, 261)
Commissions paid receivers	([1])	3, 399	1, 731
Total	1, 237, 162	5, 788, 949	2, 800, 921
Gross margin	19, 548	115, 778	13, 635
Other operating revenue:			
Loan pool service fees	127	40, 740	32, 219
CCC loan service fees	----------	[2] 17, 630	----------
Loan withdrawal service fees	155	5, 378	360
Loose cotton sales	414	1, 095	649
Interest earned	875	4, 762	4, 440
Less interest expense	(−6)	(−1, 839)	(−6, 157)
Less commissions paid receivers	(−760)	(−14, 119)	(−13, 116)
Total	805	53, 647	18, 395
Gross margin plus operating revenue	20, 353	169, 425	32, 030
Expenses:			
Salaries	44, 469	58, 542	49, 805
Employees and tax	0	4, 555	3, 992
Operating expense	20, 378	30, 786	28, 526
Advertising—Co-op News	4, 047	3, 827	5, 772
Cotton adjustments, miscellaneous	0	656	793
Total	68, 894	98, 366	88, 888
Net operating margin or loss	(−48, 541)	71, 059	(−56, 858)
Other revenue:			
Unapplied cotton loan deduction for prior years	9, 993	976	14, 301
CCC loan service fee for prior years	55, 144	1, 549	----------
Subscription revenue for Co-op News	2, 232	----------	----------
Membership dues	4, 766	----------	----------
Miscellaneous	591	822	836
Total	72, 726	3, 347	15, 137
Total net margins or loss (before dividends)	24, 185	74, 406	(−41, 721)
	Bales marketed		
Merchandise or fixed pool cotton marketed for patrons (bales)	6, 113	28, 567	15, 060
Average sales value per bale	$205. 58	$206. 70	$186. 90

[1] Not itemized.
[2] For 1950–51 fiscal year.

Thirty-six member associations received cotton for M. F. C., but approximately 50 percent of the 1951–52 cotton came from Hinds and Rankin counties and from counties with no affiliated cooperatives. Part II of this bulletin shows the bales received by member cooperatives from 1946–53. Last year M. F. C. served direct approximately 2,500 individual cotton growers and 6,120 others had cotton equities to be retired under the association's revolving capital plan. Also, in 1951–52, M. F. C. served about 9,000 cotton growers through its member cooperatives.

Table 18 contains the operating results of the cotton marketing division for the last 3 years. Sales include only cotton marketed in M. F. C.'s fixed or merchandise pool. Usually from one-fourth to one-half of the cotton in this pool has been marketed directly for growers, and the remainder received through member co-ops. Net margins or losses (after bonuses but before dividends on stock and equities) were $41,721 in 1952–53; $74,406 in 1951–52; and $24,185 in 1950–51.

The loss in 1952–53, the first since M. F. C. began handling cotton, resulted from very low gross margins on sales primarily attributable to the steady decline in the cotton market. Thus many farmers decided to leave cotton in the loan. As indicated in table 18 practically all of the cotton placed in the loan during 1952–53 still remained in it on May 31, 1953, contrasted to the previous year when only about 8 percent of the total remained in the loan on May 31, 1952.

At the close of each fiscal year M. F. C. determines the amount of net margin in its cotton marketing department and makes a patronage refund or final payment to the county cooperatives. It provides

Table 19.—Rates of refunds or final payments per bale of cotton declared by Mississippi Federated Cooperatives (A. A. L.) for fiscal years ending May 31, 1949–53

Cotton pool or operation code	1948–49	1949–50	1950–51	1951–52	1952–53
No. 2 [1]	$1.00	$1.00	0	$2.30	0
No. 3 a-d [2]	.50	.50	0	1.75	0
No. 4 [3]	.50	.50	0	.25	0
No. 3 e [4]	--------	.20	0	0	0
CCC refunds	--------	--------	[5] $.20	0	0
Total refunds	69,388	24,898	17,867	63,848	0

[1] Cotton which producers authorized M. F. C. to withdraw from the loan and sell during fiscal year.
[2] Cotton factored by M. F. C. during current fiscal year; cotton purchased direct from producers by M. F. C. during current fiscal year; cotton placed in loan through other agencies but withdrawn and sold through M. F. C.; and cotton in M. F. C.'s prior season's loan that was marketed through M. F. C. during current fiscal year.
[3] Cotton placed in M. F. C. loan during current year but withdrawn during same year and sold through outside buyers; and cotton still remaining in loan at end of current fiscal year. (In future, refunds on this cotton will be paid the following year in the pool in which disposition was made of it.)
[4] Cotton in optional pool. This was cotton which came in on invoice and farmers left it to M. F. C. to sell at any time.
[5] These refunds were on operations conducted in 1948–49 fiscal year.

a list to show the individual farmers who are to receive patronage refunds. The county cooperatives in turn allocate the refunds to these individual members, paying them out under their revolving capital plans. During the past 10 years patronage refunds on cotton from M. F. C. have been approximately equal to the service charges collected by both the county cooperative and M. F. C.

Patronage refunds representing final settlements or payments per bale declared on different cotton pools the last 5 years are shown in table 19.

Benefits and Possible Improvements

M. F. C. has benefited cotton growers by assuring them of a market for their cotton based on its true grade and staple. By marketing cotton for many growers M. F. C. can assemble it in large even lots of like grades and staple and demand higher prices than could be obtained by individual growers on small uneven lots. In most cases growers otherwise would not have been represented on central markets by a farmers' organization.

M. F. C. has rendered growers worthwhile services in obtaining loans on their cotton. Some years it has encouraged growers to put their cotton under loan during the harvest season and then sell it at a later period. In other years it has encouraged them to sell cotton at the time of harvest.

M. F. C. has also provided an informal market service to cotton producers by periodically advising them of market conditions, outlook, and other marketing factors.

Only a small proportion of the growers in the upland area of the State, however, have been putting their cotton under Government loan through M. F. C. or marketing through its factor pool. Many seem to prefer selling their cotton outright at the time they market it rather than take a loan or an initial advance under a true pooling plan. Since many have only 3 to 5 bales to market, they do not have the interest in cooperative marketing evident among large growers.

Most growers need to understand that in a successful cooperative marketing program, the member assumes the marketing risks and costs on his cotton. This means accepting advances of less than current market prices and marketing through a factor pool where the sale is left to the discretion of the association. In other words, the cooperative sells the cotton for the member rather than buying it outright from him. Under such a system the cooperative can devote full time to obtaining volume; assembling, classing, and sorting cotton into even-running lots; and representing the grower on the market. This system avoids losses from market declines, rejections, and weights in cotton owned by the cooperative. It avoids risky practices, such as booking orders or making forward sales in months when not much cotton is available.

Apparently many local cooperative managers who are doing a good job with farm supplies are not interested in cotton marketing. If they do not want to become well-

281887°—54——5

versed and qualified as cotton classers, or if they do not have an assistant who can become a classer, M. F. C. might employ a cotton man and place him with associations in leading cotton producing counties during the marketing season. Also, more intensive information work in those counties should help increase volume.

Other Marketing Services

M. F. C. has helped in the organized production, processing, and wholesaling of hybrid corn stocks for its member county cooperatives. Where contracts are made with growers to produce hybrid corn, M. F. C. buys it at a negotiated price or otherwise markets it for a small commission.

M. F. C. also encourages more and better seed production of field grass and legume seeds in the State by providing a market for high quality seed. Any seed not required by its member cooperatives M. F. C. sells to other firms either in or out of the State. M. F. C., however, has not yet developed a marketing program among growers involving a pooling system with advances and marketing contracts.

In addition, M. F. C. has encouraged and assisted member associations in the organized production and cooperative marketing of other farm products in recent years: Eggs, poultry, and sweet corn by the Forrest County Cooperative at Hattiesburg, Miss.; common lespedeza seed by the Grenada and Calhoun Counties cooperatives; and for several years an experimental production and marketing program for fresh vegetables in Grenada County.

The federation has always been willing to provide marketing services if it appeared farmers would be benefited. From 1930 to 1933 it marketed relatively small volumes of Irish and sweet potatoes, watermelons, poultry and eggs, and bulk cotton seed. The largest volume of marketings were in 1934 when over $80,000 of sweetpotatoes, $30,000 of Irish potatoes, and about $100,000 of sirup were sold. The volume of these products, however, declined in the next 2 years so that by 1939 the association had practically no marketing business other than locally grown seeds for member cooperatives. In these various marketing activities M. F. C. encountered difficulties arising from the uncertainty of quality and grading of products loaded at country points. Also some of the products were not produced in sufficient quantities every year to develop terminal marketing services for them.

It is still the objective and policy of the federation to encourage further development in the organized production and cooperative processing and marketing of farm crops in Mississippi. It believes, however, that processing plants should be owned locally, and that M. F. C. should provide a central sales service whenever there are opportunities to be of assistance. Therefore, M. F. C. is limited by the desire and willingness of the individual growers to engage in such undertakings.

Combined Operating Results and Financial Aspects

Volume, Expenses, and Net Margins

WHOLESALE purchasing volume and net margins of M. F. C. have increased steadily since 1936 when the first study of this organization was made. At that time purchases by patrons were only about $570,000 and net margins were $2,415. The association reached the million dollar mark in 1942; the $2 million level in 1946; $4 million in 1949; and exceeded $6 million for the first time in 1951. (See table 20.) Net margins increased steadily reaching a high of $365,364 in 1950–51. Since 1930, M. F. C. has purchased a total of $48.2 million worth of farm supplies at wholesale for its member associations. Net margins realized on this volume totaled $2 million.

The volume of cotton marketed from 1941 to 1953 ranged from $2 million to $6 million most years and net margins generally ranged from $30,000 to $60,000 annually. Since

Table 20.—Volume and net margins of wholesale purchasing and marketing activities of Mississippi Federated Cooperatives for fiscal years ended May 31, 1933–53 [1]

Year ended May 31—[1]	Wholesale purchasing		Marketing		Total net margin
	Volume [1]	Net margin [2]	Volume	Net margin	
1930	$829, 545	$8, 111	$16, 227	(3)	$8, 111
1931	233, 129	−8, 438	9, 423	(3)	−8, 438
1932	54, 686	−4, 661	3, 365	(3)	−4, 661
1933	139, 522	1, 144	3, 632	(3)	1, 144
1934	178, 514	19, 880	215, 028	(3)	19, 880
1935	386, 617	14, 623	70, 819	(3)	14, 623
1936	569, 664	2, 415	13, 266	(3)	2, 415
1937	710, 445	8, 013	14, 729	(3)	8, 013
1938	627, 432	11, 044	863	(3)	11, 044
1939	691, 272	17, 054	0	0	17, 054
1940	619, 937	21, 882	0	0	21, 882
1941	708, 655	21, 758	933, 548	$4, 051	25, 809
1942	1, 061, 948	37, 626	2, 626, 344	35, 188	72, 814
1943	1, 199, 044	65, 138	2, 391, 839	32, 914	98, 052
1944	1, 316, 902	59, 498	1, 605, 005	33, 019	92, 517
1945	1, 871, 297	64, 837	3, 347, 582	36, 696	101, 533
1946	2, 327, 842	115, 926	6, 268, 054	56, 281	172, 207
1947	2, 355, 079	124, 087	2, 381, 700	32, 237	156, 324
1948	3, 238, 956	162, 415	2, 321, 743	50, 101	212, 516
1949	4, 138, 974	188, 136	3, 357, 939	79, 131	267, 267
1950	4, 732, 189	161, 285	3, 252, 117	31, 467	192, 752
1951	6, 186, 155	365, 364	1, 256, 710	20, 168	385, 532
1952	6, 928, 443	271, 968	5, 904, 727	74, 406	346, 374
1953	7, 129, 118	275, 106	2, 814, 556	(−41, 721)	233, 385
Total	48, 235, 365	2, 004, 211	38, 809, 216	443, 938	2, 448, 149

[1] Does not include value of feed handled on a commission or brokerage basis which amounted to about $675,000 in 1952 and $1,000,000 in 1953. Net margins are after bonuses to employees and remuneration to directors but before dividends on capital stock and equities. Year ended June 30 from 1930–37.
[2] Includes small amount of net margins from retail operations from 1934 to 1946, inclusive.
[3] Net margins not compiled separately on marketing operations during this period.

Table 21.—Consolidated operating statement of Mississippi Federated Cooperatives (A. A. L.) for the fiscal year ended May 31, 1953

Item	Purchasing department		Fertilizer plants		Marketing department		Total	
	Amount	Percent of total volume	Amount	Percent of total volume	Amount	Percent of total volume	Amount	Percent of total volume
Purchases by patrons:								
Fertilizer:								
Materials	$2, 757, 348	58. 52	$598, 210	24. 75			$3, 355, 558	33. 75
Mixed goods			1, 819, 084	75. 25			1, 819, 084	18. 29
Seed	1, 064, 026	22. 58					1, 064, 026	10. 70
Feed	398, 371	8. 46					398, 371	4. 01
Miscellaneous supplies	492, 079	10. 44					492, 079	4. 95
Cotton marketed for patrons					$2, 814, 557	100. 00	2, 814, 557	28. 30
Total volume	4, 711, 824	100. 00	2, 417, 294	100. 00	2, 814, 557	100. 00	9, 943, 675	100. 00
Cost of patrons purchases	4, 500, 081	95. 51	1, 918, 398	79. 36			6, 418, 479	(1) 90. 03
Payments to patrons and commissions on cotton marketed					2, 800, 921	99. 52	2, 800, 921	(2) 99. 52
Gross margins	211, 743	4. 49	498, 896	20. 64	13, 636	. 48	724, 275	7. 28
Other operating revenues:								
Feed commissions	4, 925	. 10					4, 925	. 05
Seed cleaning (net)	(−3, 085)	(−. 07)					(−3, 085)	(−. 03)
Trucking (net)			(−86)	(1)			(−86)	(3)
Loan service fees (less commission)					19, 463	. 69	19, 463	. 19
Interest	6, 362	. 14			(−1, 718)	(−. 06)	4, 644	. 05
Loose cotton sales					649	. 03	649	. 01
Storage—Commodity Credit Corporation	6, 895	. 15					6, 895	. 07
Total	15, 097	. 32	(−86)	(1)	18, 394	. 66	33, 405	. 34

Gross margins and operating revenue	226,840	4.81	498,810	20.64	32,030	1.14	757,680	7.62
Operating expenses and deductions:								
Salaries and wages	138,223	2.93	145,349	6.01	49,805	1.77	333,377	3.35
Bonuses and other compensation	11,264	.24	3,576	.15	3,992	.14	18,832	.19
General operating expenses	84,779	1.80	87,738	3.63	28,526	1.01	201,043	2.02
Advertising—Co-op News	5,773	.12			5,772	.21	11,545	.12
Cotton adjustment					18	(1)	18	(1)
Retirement insurance	3,333	.07					3,333	.03
Bad debts	7,768	.17					7,768	.08
Allocation to fertilizer plants	(−62,979)	(−1.34)	62,979	2.61				
Allocation to other departments	(−16,999)	(−.36)					(−16,999)	(−.17)
Total	171,162	3.63	299,642	12.40	88,113	3.13	558,917	5.62
Other revenue:								
Miscellaneous	4,122	.09	768	.03	836	.03	5,726	.06
Rent	3,500	.07					3,500	.04
Membership dues	430	.01					430	(3)
Patronage dividends	9,184	.20					9,184	.09
1951–52 unapplied cotton deductions					9,311	.33	9,311	.09
1952–53 unapplied cotton deductions					4,990	.18	4,990	.05
Gasoline (net)			1,182	.05			1,182	.01
Freight rate adjustments			2,445	.10			2,445	.03
Total other revenue	17,236	.37	4,395	.18	15,137	.54	36,768	.37
Other deductions:								
Rental property expense	706	.02					706	.01
Donations	596	.01	69	(3)			665	(1)
Over and under payment					775	.03	775	.01
Total other deductions	1,302	.03	69	(3)	775	.03	2,146	.02
Total net margins (before dividends on stock and equities)	71,612	1.52	203,494	8.42	(−41,721)	(−1.48)	233,385	2.35

[1] Percent of total purchases by patrons.
[2] Percent of cotton marketed for patrons.
[3] Less than 0.05 percent.

1940, M. F. C. has marketed a total of $38.8 million worth of cotton in its merchandise pool, realizing net margins of $444,000.

Combined volume of the organization reached a high of $12.8 million in 1951–52. Total net margins (after bonuses) exceeded $100,000 for the first time in 1944–45 and reached a high of $385,532 in 1950–51.

A detailed consolidated operating statement of M. F. C., by departments, for the fiscal year ended May 31, 1953, is shown in table 21. The purchasing department includes the wholesale operations conducted through the State office and through the Canton and Tupelo warehouses. This department had a total volume of about $4.7 million with expenses of 3.6 percent and a net margin of 1.5 percent, or $71,612. Volume of the fertilizer plants was $2.4 million with expenses of 12.4 percent and net margins of 8.4 percent.

Of the total volume of supplies only about 6.5 percent, mostly basic slag, went to nonmember nonproducer patrons. About 3.5 percent went to dealer-agents and order-takers and 3 percent went to commercial firms.

Cotton sales were $2.8 million with expenses of 3.1 percent and a net loss of 1.5 percent, or $41,721.

Total volume of the organization was, therefore, $9.9 million with an overall gross margin and other income of 8.0 percent, expenses of 5.6

At annual meetings, farmer-members hear detailed report of operating results of the local cooperative and M. F. C. and plans for improving services.

Table 22.—Selected operating comparisons for Mississippi Federated Cooperatives (A. A. L.) for fiscal years ended May 31, 1950–53

Comparisons	Percent of volume			
	1950	1951	1952	1953
Purchasing department:				
Gross margins	5.23	6.40	5.04	4.49
Expenses	3.28	3.58	3.50	3.66
Net operating margins	1.95	2.82	1.54	.83
Service and other income	.48	.18	.43	.69
Total net margins	2.43	3.00	1.97	1.52
Fertilizer plants:				
Gross margins	24.35	29.00	21.88	20.64
Expenses	18.02	14.96	13.73	12.40
Net operating margins	6.33	14.04	8.15	8.24
Service and other income	.06	.44	.03	.18
Total net margins	6.39	14.48	8.18	8.42
Total farm supply operations:				
Gross margins	9.89	12.12	10.34	9.97
Expenses	6.87	6.46	6.72	6.62
Net operating margins	3.02	5.66	3.62	3.35
Service and other income	.38	.25	.31	.51
Total net margins	3.40	5.91	3.93	3.86

percent, and net margins of 2.4 percent, or $233,385.

Table 22 indicates the gross margin realized by the wholesale purchasing department was between 4.5 and 6.5 percent per dollar of volume from 1950 to 1953, while that realized by the fertilizer plants ranged from 21 to 29 percent. During the period expenses per dollar of volume increased slightly in the purchasing department but declined substantially for fertilizer plants. Net margins of the purchasing department ranged between 1.5 and 3 percent while those by the fertilizer plants were from 6.4 to 14.5 percent. Total net margins from all supply purchasing and manufacturing operations were thus 3.4 percent in 1950, 5.9 in 1951, and 3.9 in 1952 and 1953. These compare with total net margins on purchasing operations of 3.7 percent in 1935 and 3.5 percent in both 1940 and 1945.

The annual distribution of net margins, after payment of bonuses to employees, from 1930 to date is shown in table 23. After providing for cash dividends on capital stock and equity balances and a small amount for cash patronage refunds and interest refunds, a large proportion of each year's net margin was thus declared as patronage refunds payable in capital stock of M. F. C. The remainder was retained in the business as allocated margins or equities.

Table 23.—Distribution of net margins of Mississippi Federated Cooperatives (A. A. L.) for fiscal years ended June 30, or May 31, 1930–53, inclusive [1]

Fiscal year ended May 31— [2]	Cash dividends paid on capital stock	Cash dividends paid on equities	Cash patronage refunds	Cash interest refunds	Patronage refunds paid in—		Added to allocated margins	Total net margins [3]
					Common stock	Preferred stock		
1930	----------	----------	----------	----------	----------	----------	$8, 111	$8, 111
1931	----------	----------	----------	----------	----------	----------	(−8, 438)	(−8, 438)
1932	----------	----------	----------	----------	----------	----------	(−4, 661)	(−4, 661)
1933	----------	----------	----------	----------	----------	----------	1, 144	1, 144
1934	$216	----------	----------	----------	----------	----------	19, 664	19, 880
1935	216	----------	$981	----------	$9, 880	----------	3, 546	14, 623
1936	673	----------	769	----------	----------	----------	973	2, 415
1937	809	----------	493	----------	10, 210	----------	(−3, 499)	8, 013
1938	1, 171	----------	130	----------	3, 275	----------	6, 468	11, 044
1939	1, 258	----------	2, 516	----------	2, 165	----------	11, 115	17, 054
1940	1, 116	----------	2, 272	----------	7, 660	----------	10, 834	21, 882
1941	1, 329	----------	4, 027	----------	5, 870	----------	14, 583	25, 809
1942	1, 540	----------	2, 882	----------	37, 940	----------	30, 452	72, 814
1943	2, 660	----------	3, 707	----------	45, 175	----------	46, 510	98, 052
1944	4, 494	----------	6, 158	----------	68, 825	----------	13, 040	92, 517
1945	10, 199	----------	4, 526	----------	73, 150	----------	13, 658	101, 533
1946	8, 624	$4, 635	2, 967	----------	90, 785	----------	[3] 65, 196	172, 207
1947	9, 120	4, 036	3, 307	$7, 404	51, 720	$51, 725	29, 012	156, 324
1948	13, 920	3, 536	11, 818	----------	83, 595	83, 675	15, 972	212, 516
1949	24, 839	3, 435	3, 903	11, 579	101, 400	101, 500	20, 611	267, 267
1950	31, 348	3, 651	2, 600	3, 789	68, 335	68, 300	14, 729	192, 752
1951	35, 363	2, 855	----------	----------	162, 070	162, 140	23, 104	385, 532
1952	45, 909	2, 792	----------	----------	138, 295	138, 400	20, 978	346, 374
Subtotal	194, 804	24, 940	53, 056	22, 772	960, 350	605, 740	353, 102	2, 214, 764
1953	54, 697	4, 024	----------	----------	84, 700	84, 650	5, 314	233, 385
Total	249, 501	28, 964	53, 056	22, 772	[4] 1, 045, 050	[5] 690, 390	[6] 358, 416	2, 448, 149

See footnotes on page 63.

Various additions and deductions against the allocated margin account and conversions of common stock to preferred stock made during this period must be included in balancing out the various net worth or capital accounts at the end of each year. (See footnotes for table 23.)

M. F. C. began revolving a portion of its capital in 1944. Since then common stock and allocated margins or equities totaling $370,274 have been retired and paid in cash or its equivalent to member associations and individuals. (See table 29 on p. 70.) Local co-ops received $189,810 in payment for common stock and $59,464 for patrons' equities; and individuals received $121,000 for patrons' equities.

When these amounts are added to the dividends and refunds paid in cash on a current basis, total cash disbursements by M. F. C. to date have amounted to $724,567. (See table 27 on p. 68.) Approximately $539,567 of this amount went to local co-ops and $185,000 to individual producers.

M. F. C. has always met the qualifications for exemption from payment of Federal and State income taxes, but it pays all other types of taxes. In 1952–53, ad valorem taxes of $12,554 and social security taxes of $8,299 were paid.

Amounts and Sources of Capital

Total assets and net worth of Mississippi Federated Cooperatives (A. A. L.) and its predecessor organization have grown steadily since 1932. At the time of the first study of this organization in 1936 it had assets of only $64,216. Ten years later, in 1946, total assets were $1,214,000; and in 1953 they were over $2.5 million. Detailed balance sheets for 1951, 1952, and 1953 are included in table 24 and condensed balance sheets for 5-year intervals from 1930 to 1950 are included in Appendix, table 9.

In 1953 current assets represented almost 60 percent of total assets; net fixed assets were about 30 percent; and other assets, including investments in other cooperatives, represented over 10 percent. On May 31, 1953, net current assets or working capital (current assets minus current liabilities) totaled $862,485. Assets have fluctuated considerably since 1940 because of cotton loans and advances on CCC purchase cotton outstanding at the end of a particular year. Also supply inventories and operating

Footnotes for Table 23

[1] After deducting bonuses to employees and renumeration to directors. These distributions are reflected in the outstanding balance of the capital accounts as of June 30.

[2] Fiscal year ended on June 30 during forepart of this 1930–53 period.

[3] A total of $37,000 of the 1945–46 net margins was placed in a contingency reserve so that only $28,196 was actually added to the allocated margin account that year. In the 2 previous years other amounts totaling $39,000 had been added to this reserve before determining net margins so that it totaled $76,000 on May 31, 1946. It has remained at that amount since that time.

[4] Of this total, $142,960 was converted to preferred stock from 1942–46; $189,810 was retired under the revolving capital plan; and $25,245 represented adjustments; thus leaving $687,035 outstanding on June 30, 1953.

[5] When the amount of $142,960 ([4]) of common stock converted to preferred, plus $133,500 of preferred stock in Mississippi Chemical Corp. is included, the total outstanding preferred on June 30, 1953, was $966,850.

[6] Other additions to and deductions from the allocated margin account must be included in order to balance it out at the end of each fiscal year. "Additions" consisting mainly of deferred patronage refunds from other cooperatives and miscellaneous adjustments totaled $102,088 from 1930–53. "Deductions" consisted mainly of retirements of equities or allocated margins totaling $180,464, conversions to contingency reserves totaling $37,000, and subscriptions to house organ, membership dues, and adjustments of receivables and inventories totaling $149,975 from 1930–53. This resulted in a net increase in allocated margins outstanding from $46,127 on June 30, 1929, to $139,191 on June 30, 1953 (with $5,314 from the 1952–53 net margins included).

Table 24.—Comparative balance sheets of Mississippi Federated Cooperatives (A. A. L.) for fiscal years ending on May 31, 1951, 1952, and 1953

Item	May 31, 1951	May 31, 1952	May 31, 1953
ASSETS			
Current assets:			
Cash on hand and in banks	$636,369	$302,614	$181,935
Accounts receivable	584,965	590,082	779,344
Interest and other receivables	24,814	----------	32,156
Notes receivable	2,000	2,000	2,000
Less allowance for doubtful accounts	(−41,223)	(−41,223)	(−49,014)
Advances on cotton	115	6,696	3,266
Inventories	619,533	434,796	435,575
Prepaid insurance and other	55,774	24,268	35,553
Total current assets	1,882,347	1,319,233	1,420,815
Fixed assets:			
Land, buildings, and equipment	889,938	948,254	1,061,443
Less reserve for depreciation	168,975	236,196	279,022
Total net fixed assets	720,963	712,058	782,421
Other assets:			
Investments and deposit on stock	271,572	302,343	332,213
Long-term notes receivable	33,000	31,000	29,000
Miscellaneous	4,219	243	457
Total other assets	308,791	333,586	361,670
Contra-accounts: Commodity loans on cotton	20,249	405,137	0
Total assets	2,932,350	2,770,014	2,564,906
LIABILITIES AND NET WORTH			
Current liabilities due outsiders:			
Accounts payable	197,705	188,494	94,078
Notes payable	----------	----------	240,500
Accrued liabilities	3,860	24,710	29,814
Miscellaneous	135	288	16,406
Total	201,700	213,492	380,798
Current liabilities due members and patrons:			
Credit balance in accounts receivable (for loan capital)	80,433	127,002	94,291
Dividends payable on stock	3,697	23,030	23,829
Stock and equity retirements	----------	30,300	44,645
Cotton equities, drafts, checks, and deductions payable	806,998	21,566	14,767
Total	891,128	201,898	177,532
Total current liabilities	1,092,828	415,390	558,330
Long-term or deferred liabilities: Notes payable (less stock in Bank for Co-ops)	195,000	175,000	120,000

Table 24.—Comparative balance sheets of Mississippi Federated Cooperatives (A. A. L.) for fiscal years ending on May 31, 1951, 1952, and 1953—Con.

Item	May 31, 1951	May 31, 1952	May 31, 1953
LIABILITIES—Continued			
Reserves:			
Reserve for contingencies [1]	$76,000	----------	$76,000
Reserve for education and other	12,658	$2,500	2,500
Total reserves	88,658	2,500	78,500
Contra-accounts: Commodity loans on cotton	20,249	405,137	----------
Net worth:			
Preferred capital stock	581,500	743,625	882,200
Common capital stock	403,425	508,485	602,335
Contributed capital	----------	15,000	15,000
Undistributed net margins [1]	550,690	504,877	308,541
Total net worth	1,535,615	1,771,987	1,808,076
Total liabilities and net worth	2,932,350	2,770,014	2,564,906

[1] See table 26 for items making up undistributed margins. Reserves for contingencies and for dividends for inactive members were added to the undistributed allocated net margins account in 1952; but in 1953 reserves for contingencies were again listed as a separate item.

Source: Annual audits of Mississippi Federated Cooperatives (A. A. L.).

capital loans to local cooperatives affect the amount of capital required by M. F. C.

Fixed assets have increased greatly since 1945 due to the acquisition of fertilizer plants and a seed cleaning plant and warehouse. Likewise, investments in other cooperatives have increased since then as a result of participation in manufacturing facilities of other associations. On May 31, 1953, M. F. C. had $1,365,000 (at cost value) invested in its own facilities and those jointly owned with other regionals, and its net investment after depreciation was approximately $1,085,000.

Capital for financing M. F. C.'s operations has come from credit normally extended by suppliers for merchandise, from borrowings, and from net operating margins or savings allocated to patrons and retained in the business. Liabilities have fluctuated due to loans outstanding on cotton and to the amount of equities, drafts, checks, and deductions payable for cotton at various times. Current liabilities on May 31, 1953, totaled $558,330, of which about one-third was due members and patrons for such items as loan capital, dividends, and cotton equities. The other two-thirds was due outsiders for merchandise, accrued expenses, and borrowed funds. Long term notes payable or deferred liabilities totaled $120,000. Membership capital is discussed in the next section of this bulletin.

Since 1934 M. F. C. has borrowed

from the New Orleans Bank for Cooperatives funds for various purposes—operating capital loans for conducting supply operations and for financing the retail operations of its member cooperatives; facility loans for acquiring buildings and equipment; and commodity loans

Table 25.—Net worth of Mississippi Federated Cooperatives (A. A. L.) at close of fiscal years ended in 1930 through 1953

Fiscal year ending in—	Net worth
1930	$29,095
1931	19,897
1932	6,607
1933	7,943
1934	28,779
1935	43,104
1936	42,815
1937	49,766
1938	54,810
1939	68,669
1940	83,469
1941	104,306
1942	170,768
1943	249,317
1944	334,803
1945	385,794
1946	532,189
1947	617,841
1948	768,223
1949	1,121,827
1950	1,235,871
1951	1,535,615
1952	1,771,987
1953	(1) 1,884,076

1 Including reserves for contingencies.

for making temporary advances to cotton growers who placed their cotton in the Government loan pool or other pools operated by M. F. C.

Operating capital loans are obtained on the basis of net current assets owned. Advances to finance special inventories of farm supplies and accounts receivable against local member cooperatives, backed up by Production and Marketing Administration (P. M. A.) orders, are limited to a specified percent of the delivered cost value of the inventories and the base value of these P. M. A. receivables.

For the purpose of financing temporary advances to growers against warehouse receipts of lint cotton, pending completion of Commodity Credit Corporation loans and delivery of cotton to the C. C. C., M. F. C. may obtain from the New Orleans Bank for Cooperatives advances up to a stipulated amount under an acceptable custodianship. M. F. C. also may obtain loans up to a stipulated amount to finance cotton it acquires from producers for resale, hedged either by sales at a fixed price for future delivery to reputable purchasers, or by sale of future contracts on the New York or New Orleans Cotton Exchange. M. F. C. limits its advances to growers to a specified percent of the loan value in the first case, and of the cotton value in the second case.

M. F. C. has made progress with its member cooperatives in getting them to make advances or deposits to pay for their merchandise when it is later needed and ordered. On May 31, 1953, 11 cooperatives had deposited $93,738 with M. F. C. for this purpose, compared with $127,000 by 8 cooperatives on May 31, 1952. M. F. C. considers this as "loan capital" and pays interest at the rate of 4 percent a year.

Net Worth and Revolving Capital

M. F. C. had almost $2 million of member capital in use on May 31, 1953. About $1,885,000 was represented by net worth, including capital reserves, and $94,000 by loan capital advanced to M. F. C. As indicated in table 25 the net worth of the organization was at a low of $6,607 in 1932 and did not reach a million dollars until 1949.

The items making up the net worth for the last 3 years are shown in detail in table 26. Of the total of $1,884,076 on May 31, 1953, $1,553,085 originated from purchasing operations and $330,971 from cotton marketing operations. Most of the net worth has accumulated from net margins retained in the business. (See table 27.)

Table 26.—Itemized net worth of Mississippi Federated Cooperatives (A. A. L.) for May 31, 1951, 1952 and 1953

Item	May 31, 1951	May 31, 1952	May 31, 1953
Capital stock:			
Common stock (issued from patronage refunds)	$403,425	$508,485	$602,335
Preferred stock (for M. C. C.)	133,500	133,500	133,500
Preferred stock (issued from patronage refunds)	448,000	610,125	748,700
Total capital stock	984,925	1,252,110	1,484,535
Allocated margins:			
To cooperatives	12,608	2,954	1,941
To individuals (purchasing department) [1]	68,115	60,411	57,224
To cotton producers equities	32,027	25,345	32,218
Subtotal	112,750	88,710	91,383
Separate patronage allocations to member cooperatives and individuals represented by certificates of indebtedness from Associated Cooperatives, Inc. [1]	36,352	42,494	42,494
Represented by capital stock from Consumers Cooperative Association	17	0	0
Total allocated margins	149,119	131,204	133,877
Reserves for contingencies [2]	0	76,000	76,000
Contributed capital	0	15,000	15,000
Net margins for current year—not yet distributed	[3] 401,571	[4] 297,673	[4] 174,664
Total net worth	1,535,615	1,771,987	1,884,076

[1] Individual patrons of purchasing department own $1,158 of the allocation certificates of Associated Cooperatives as of May 31, 1952 and 1953.
[2] Prior to 1952 this was carried as a separate reserve account rather than as a part of net worth
[3] Before dividends on capital stock and equities as per audit.
[4] After dividends on capital stock and equities as per audit.

On May 31, 1953, M. F. C. had $602,335, or 120,467 shares, of common stock and $882,200, or 35,288 shares, of preferred stock outstanding. Dividends on the common stock are limited by the bylaws to 6 percent a year and are noncumulative. In recent years 3 percent has been declared annually by the directors. A member cooperative cannot own more than 10 percent of the outstanding common stock.

Preferred stock carries a dividend of 4 percent a year and the bylaws provide that it shall be cumulative for a 2-year period—to a total of 8 percent of its par value—and preferred as to assets as well as dividends. The bylaws provide that directors shall never issue a larger number of shares of preferred stock than the number of outstanding shares of common stock; and a part of the outstanding preferred may be retired either according to its age or on the basis of a prorata part of all such stock. For special reasons deemed sufficient by the Board, any specific shares may be retired at any time with the consent of the holder. Furthermore, any preferred stock that has been issued on account of money paid into the association for some specific reason may be retired on a separate schedule from that applying to other preferred stock.

Undistributed margins represent another important type of capital in M. F. C. These totaled $308,541 on May 31, 1953, and consisted of current net margins for the year plus allocated margins or patrons' equities retained from prior years' net margins. The co-op pays a dividend of 4 percent annually on

Table 27.—Summary of changes in net worth account of Mississippi Federated Cooperatives (A. A. L.) from July 1, 1929, through May 31, 1953

Item	Amount
Net worth on July 1, 1929	$46,127
Additions:	
Total net margins from July 1, 1929, through May 31, 1953	2,448,149
Preferred stock issued for Mississippi Chemical Corp	133,500
Contingency reserves (set up before determining net margins in 1943–44 and 1944–45)	39,000
Donations	15,000
Miscellaneous additions to allocated margins account [1]	102,088
Total	2,783,864
Deductions:	
Cash dividends and refunds paid currently	354,293
Cash retirements of common stock under revolving capital plan	189,810
Cash retirement of allocated margins under revolving plan	180,465
Adjustments in capital stock	25,245
Miscellaneous deductions from allocated margins account	149,975
Total	899,788
Net worth on May 31, 1953	1,884,076

[1] See footnote 6, Table 23, on page 63.

Table 28.—Capital stock outstanding in Mississippi Federated Cooperatives (A. A. L.) by fiscal year for which issued

Fiscal year for which issued [1]	Common stock	Preferred stock [2]
1941–42	----------	$19,850
1942–43	----------	25,650
1943–44	----------	26,275
1944–45	----------	30,350
1945–46	----------	44,725
1946–47	$48,650	48,500
1947–48	----------	[3] 133,500
1947–48	84,110	83,800
1948–49	100,785	100,875
1949–50	68,670	68,450
1950–51	162,065	162,100
1951–52	138,055	138,125
Subtotal	602,335	882,200
1952–53	84,700	84,650
Total	687,035	966,850

[1] This is the fiscal year ended in May 31 for which capital stock was issued in payment of patronage refunds. Distribution was not completed and reflected in balance sheets until June 30 of succeeding fiscal years.
[2] Preferred stock for years 1941–42 through 1945–46 was converted from common stock. (See table 23.)
[3] From local co-ops for investment in nitrogen plant of Mississippi Chemical Corp., Yazoo City.

patrons' equities credited to both member and nonmember cooperatives and to individual farmers.

Outside of the preferred stock invested directly in M. F. C. by local cooperatives, the remaining preferred and common stock has been issued as payment for patronage refunds. Under the present plan 50 percent of such refunds are issued annually in the form of common stock and 50 percent as preferred stock. The common stock is being retired under a 7-year revolving capital plan. Table 28 shows the amounts outstanding according to years for which issued. The present plan of the directors is to issue preferred stock equal to the amount invested in fixed assets (at depreciated value) plus the investment in Mississippi Chemical Corp., Associated Cooperatives, and United Cooperatives. After that balance is reached the preferred stock will then be revolved.

Net margins or savings not declared as patronage refunds payable in capital stock are completely allocated on a patronage basis to all patrons and credited on the books as allocated margins or patrons' equities. These equities to both members and nonmembers have been revolved in the same manner as common stock.

The board of directors first put the revolving capital plan into effect in 1944 when both common stock and allocated margins, originally issued in 1936 and totaling $18,679, were paid back in cash. Since then various amounts have been revolved each year as indicated in table 29.

By June 30, 1953, a total of $370,274 had been paid back to member associations and other patrons in cash, except in 4 years when part was applied on membership fees owed to M. F. C. Of this total, individual cotton growers and supply patrons in areas where there were no member cooperatives received about $121,000 cash in payment of patrons' equities, and local cooperatives received the remaining $249,274. All common stock and equities outstanding through May 31, 1946, have thus been retired.

Financial Ratios

Table 30 contains several comparisons or ratios for 1950–53 showing the financial condition of M. F. C. to be satisfactory. On May 31, 1953, it had current assets of $2.54 for each $1 of current liabilities; net worth was 73 percent of total assets; it turned farm supply inventories about 15 times; and it did $8.27 of purchasing volume for each $1 of net current assets or working capital. A number of ratios showed improvement from 1950 to 1953.

Some of the more unfavorable trends indicated in the table were: net receivables constituted 55 percent of current assets in 1953 compared to 30 percent in 1951; and 35 days of sales (patrons purchases) were tied up in receivables last year, compared with 25 in 1952 and 31 in 1951.

Future Capital Needs and Suggestions

Management of M. F. C. indicated that in the near future it will need approximately $750,000 for additional facilities and working capital. Later another $500,000 may be needed which would bring

Table 29.—Capital stock and allocated margins or equity balances retired in cash under the revolving capital plan of Mississippi Federated Cooperatives (A. A. L.) from 1943–44 through 1952–53

Fiscal year issued	Fiscal year paid	Common stock retired in cash	Allocated margins or patrons' equities—		Total
			Paid in cash	Applied on membership fees	
1935–36	1943–44	$16,340	$2,339		$18,679
1936–37	1944–45	5,755	4,230		9,985
1938–39	1945–46	3,755	10,184		13,939
1939–40	1946–47	7,540	5,538		13,078
1940–41	1947–48	9,205	7,453	$20,159	36,817
1941–42	1948–49	19,975	4,962	11,771	36,708
1942–43	1949–50	25,570	9,382	14,366	49,318
1943–44	1950–51	26,725	18,145	9,461	54,331
1944–45	1951–52	30,300	43,894		74,194
1945–46	1952–53	44,645	18,580		63,225
Total		189,810	124,707	55,757	370,274

Table 30.—Selected financial comparisons or ratios for Mississippi Federated Cooperatives for fiscal years ended May 31, 1950–53

Comparisons or ratios	1950	1951	1952	1953
Amount of current assets for each dollar of current liabilities	$2.48	$1.72	$3.18	$2.54
Percent that net receivables was of current assets	40.2	30.3	41.2	54.9
Amount of net current assets per dollar of supplies inventory	$5.65	$2.37	$1.57	$1.98
Purchasing volume per dollar of net current assets or working capital	$4.71	$6.24	$7.67	$8.27
Purchasing or farm supply volume per dollar of fixed assets (at cost value)	$6.88	$6.95	$7.31	$6.72
Purchasing volume per dollar of gross fixed assets plus investments in other co-ops	$5.08	$5.33	$5.54	$5.22
Purchasing volume per dollar of total assets (exclusive of cotton loans)	$2.39	$2.12	$2.94	$2.78
Percent that net worth was of total assets [1]	56.4	52.4	64.0	73.4
Of total assets (minus cotton loans)	66.2	53.3	74.9	73.4
Percent that net worth plus current liabilities due members was of total assets	67.6	85.3	71.3	77.4
Net worth per dollar of net fixed assets plus investments in other co-ops	$1.56	$1.61	$1.76	$1.66
Farm supplies inventory turnover (times per year) (Based on cost of patrons, purchases and average of annual beginning and ending inventories.)	21.3	13.0	10.8	14.7
Number of days' purchases by patrons tied up in receivables (Based on gross receivables and 310 working days per year.)	33.0	30.6	25.2	35.4

[1] Net worth includes reserves for contingencies.

its net worth up to $3 million. Among the present needs for capital are the following:

1. An increase of $167,000 in the investment by M. F. C. and its local cooperatives in Mississippi Chemical Corp. This would raise the total to $400,000—a little over 20 percent of M. F. C.'s present net worth, or 16 percent of its net worth if $750,000 more capital is raised from members.

2. Additional capital for two or three more small fertilizer mixing plants, plus the plant purchased in May 1953.

3. It may need to invest more in Associated Cooperatives, United Cooperatives, M. F. A. Milling Co. and other regional cooperatives to help finance manufacturing facilities. However, M. F. C. can provide much of this by leaving future patronage refunds in these organizations.

4. More operating capital will be required for both local cooperatives and M. F. C. as locals increase their volume of present supplies and take on new items such as feed and petroleum, and as new county cooperatives are organized.

Many of M. F. C.'s member cooperatives now appear to have de-

veloped enough so that they and their farmer members could make a considerable amount of direct investments in M. F. C. In other States several regional associations owned by local co-ops have been able to raise substantial amounts of capital from individuals. No preferred stock has been sold by M. F. C. directly to farmers mainly because under Missisippi law each share of preferred stock would be entitled to a vote. However, M. F. C. could sell certificates of indebtedness or debentures to cooperatives and individuals to help finance needed facilities. These would not carry voting privileges but would have priority over preferred and common stock, both as to assets and interest or dividends. They would probably bear an interest rate slightly higher than the dividend rate on common and preferred stock. They could either be negotiable or nonnegotiable, but many cooperatives prefer the latter type.

Debentures or bonds would be required to have maturity dates and cumulative interest provisions, but such provisions would not be required for certificates of indebtedness as long as the association was income-tax exempt.[6]

While such provisions may be preferred by some investors, others may prefer no maturity dates if it is the policy of the directors to redeem such certificates whenever the finances of the association will permit it. Another disadvantage to the co-op of a maturity date is that the certificates may come due at a time when it is not able to retire them. Also, bankers generally regard certificates with maturity dates as deferred liabilities rather than as net worth items in appraising applications for loans. Some lenders recommend, therefore, that if maturity dates are to be used that they be not less than 10 years from date of issue; and that the certificates may be paid in capital stock or other capital certificates, if the association is unable to redeem them in cash at date of maturity.

Provisions in the bylaws should be made for retiring either bonds or certificates of indebtedness at a later date under a revolving capital system so that member associations will eventually finance the organization in proportion to their use of it.

M. F. C. might also establish and build a members' capital reserve account from annual net margins to serve as a cushion for unusual losses and as a protection for capital stock and patrons' equities. A small percent of each year's net margins could be added to such a reserve until it reached a stipulated proportion, such as 10 or 25 percent of other member capital in the organization. No interest should be paid on this account. Such a reserve account would have to be allocated to patrons under M. F. C.'s present basis of operation, but it probably would not have to be revolved as long as it represented a small proportion of the total member capital

[6] At the time this was written, certificates of indebtedness issued by an income-tax-exempt cooperative were not required to have maturity dates nor cumulative interest provisions, but those issued by a nonexempt cooperative were required to contain such provisions if the cooperative desired to consider interest on the certificates as a deductible expense item.

and if it was reasonable and necessary.

These comments assume that the association would continue to operate on an income-tax-exempt basis; however, should it ever change to an income-taxpaying status, then M. F. C. should consider revamping its capital structure so that dividends on capital stock could be kept at a very low rate, and so that future patronage refunds retained in the business could be evidenced either in capital stock bearing little if any dividends, or in some form other than capital stock.

Part II—Member County Cooperatives

Number of Cooperatives and Branches

ON May 31, 1953, Mississippi Federated Cooperatives (A. A. L.) had 43 member associations and another recently formed cooperative had applied for membership. All but one were in the upland or hill section. (See fig. 7.) Their names and headquarters are listed in Appendix table 10.

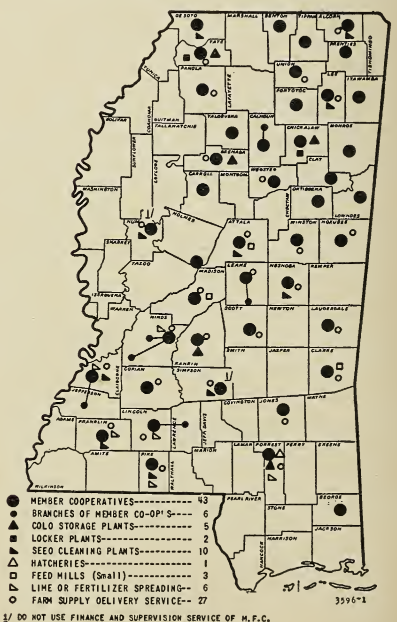
Forty-two were countywide associations, although some served portions of adjoining counties. Two served much of three or more counties. Five cooperatives operated a total of seven branch stations. Two branches were located in adjoining counties which did not have purchasing co-ops. All except 2 of the 43 member associations were using the financing and supervising services of M. F. C., discussed in Part I.

Information on members, managers, and employees is based largely on data obtained from 42 associations in 1950, while information on operating results and financial condition is based on 40 associations financed and supervised by M. F. C. during the fiscal year ending June 30, 1952.

Dates Formed and Changes Since 1930

Twenty-five of the forty-three member associations were incorporated from 1930 through 1937 and 18 were formed from 1940 through 1952. The two main periods, how-

Figure 7.—Member cooperatives affiliated with Mississippi Federated Cooperatives (A. A. L.) May 1953.



[7] For more detailed information on 33 of the affiliated member county associations of Mississippi Federated Cooperatives (A. A. L.) and of other purchasing associations for 1948–49, see Bulletin 491, "*Operating Policies and Practices of Cooperative Purchasing Associations in Mississippi*" by Lewis P. Jenkins, Mississippi State College, State College, Miss.

ever, were 1934–37 and 1943–46 as shown by the following tabulation.

Year of incorporation:	*Cooperatives incorporated*
1930	2
1931	1
1932	2
1934	4
1935	8
1936	3
1937	5
1940	1
1941	1
1943	4
1945	4
1946	3
1947	1
1948	1
1950	2
1952	1
Total	43

Of the original 63 farm bureau purchasing units supplied by M. F. C. in 1930, 36 were in operation as separate incorporated associations in 1936 and only 21 existed in 1953. Twenty-two new ones thus were formed during the 1936–53 period—four in the counties formerly having cooperatives. Most of these associations ceased operations because their purchasing activities were conducted largely on a car-door delivery basis under the supervision of the county extension agents and they did not develop sufficient volume to acquire a warehouse and a full-time manager.[8]

Some discontinued because of weak management and lack of volume and capital. A few in the vicinity of Simpson County closed because of the service farmers could get from the successful cooperative at Magee, Miss.

Additional Possibilities

With the increased use of farm supplies in recent years, there may be possibilities for forming purchasing associations in other counties if farmers feel there is a need. Such counties in the upland section with large farm expenditures for feed, fertilizer, and seeds are Marshall, Newton, Smith, Walthall, Marion, and Amite. Also several counties in the Delta without general purchasing cooperatives use large amounts of petroleum, as well as fertilizer and seed. These include Yazoo, Warren, Sharkey, Washington, and Bolivar. The experience of some local cooperatives in the northern part of the Delta which first handled petroleum products and later added insecticides, fertilizer, and general supplies indicates that this type of association might operate successfully in other sections of the area.

Five of the present associations indicated that they were considering adding branches—three in outlying corners of their counties and two in adjoining counties not now having supply cooperatives. They believed that branch stations would give members better service—especially during the fertilizer season in the large area counties. Associations with branches considered them worthwhile, but others without branches questioned whether they would be difficult to handle and whether they would get sufficient volume to keep overhead expenses reasonable.

[8] In 1936, when these associations were first studied, half of them were still supervised by county agents, with two using local merchants to handle the supplies. The other half employed managers—some of which were only on a part-time basis. Twenty-nine operated warehouses and seven operated only a car-door service.

Members and Patrons

FORTY-TWO associations in 1950, the latest year data were available, had 59,291 members, or an average of 1,412 an association. The range was from 130 to 3,000. The number having memberships within certain ranges are shown in the tabulation on this page. Approximately 90 percent of the members were patrons.

Members:	*Cooperatives*
Less than 500	2
500–999	14
1,000–1,499	7
1,500–1,999	5
2,000–2,499	8
2,500 and over	6
Total	42

In 1953, estimated membership of the 43 associations was 60,000 and estimated number of patrons was 75,000, including members and nonmembers and occasional as well as regular patrons. The membership consisted of farmers that were colored and white, large and small, cotton and general, and tenants and owners.

For the fiscal year ended June 30, 1950, producer - member business constituted 82 percent; producer nonmember volume 16 percent; and nonproducer nonmember volume 2 percent of the total for 42 associations.

Members and nonmembers are treated alike in charges made for supplies and services and in prices paid for products marketed. All associations declare patronage refunds to both on the same basis.

All associations have qualified for exemption from payment of Federal income taxes. Each patron, of course, must take into account his respective share of the patronage refunds or distributions from the cooperative when preparing his individual tax return.

These associations pay various other taxes generally assessed against similar lines of business. Data obtained on 40 associations for their 1951–52 fiscal year showed they paid total ad valorem taxes of $11,465 and social security taxes and workmen's compensation insurance of $10,081.

Membership Requirements

Farmers become members of local associations by signing applications and receiving approval of the boards of directors. The association at Panola also charges a $1 membership fee and that at Belzoni requires ownership of a $1 share of common stock.

Membership in the local farm bureau is not required but most associations encourage their members to join it. None of the cooperatives contribute any of their annual net margins to the local farm bureaus.

In all associations except those with capital stock, each member has only one vote. None use membership contracts or agreements in their purchasing or marketing operations. Bylaws of practically all associations provide that a member loses his membership privileges when he quits farming, ceases to

patronize the association for 1 year, or violates its bylaws.

Members provide capital for their cooperatives largely by leaving their patronage refunds in the business in the form of patrons equities. About half have sold some certificates of indebtedness to members in recent years. Twenty-five were operating on a revolving fund capital system. The capital structure of the cooperatives will be discussed in a later section of this bulletin on page 125.

Annual Meetings

Forty associations reported their average attendance at annual meetings in 1950 was 160 members while 32 associations in 1952 reported an average of 86, or only 11 and 6 percent of the members, respectively. Attendance varied from year to year in the same association due to weather, conflicting meetings, and other factors.

The number with various attendances are shown in this tabulation.

Attendance	*Associations reporting* 1950	1952
Less than 50	9	12
50–99	10	11
100–199	11	5
200 or more	10	4
Total	40	32

Most managers stated that some incentive was needed, in addition to the business meeting, to get a good attendance, but three said they had not found a sure way of getting out a crowd. A majority said that some type of food—a dinner or picnic—was needed, and several indicated both food and entertainment was necessary. Two favored door prizes; another said more competition in election of directors; another favored a joint meeting with the farm bureau; and several mentioned that good speakers and entertainment were necessary.

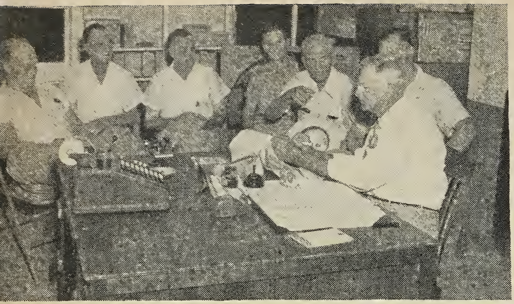
The Hinds County association, which staged a fish fry one year, had an attendance of 700. Last year about 300 attended when a supper and entertainment made up part of the program. The cooperative paid the local junior college for serving the meal. The crowd consisted mainly of the men and their wives as only the most interested were invited. The Webster County association, which had an attendance of 400 in 1951, reported that they had a dinner at noon served by the home economics departemnt of the local high school. The cooperative paid them for the food plus $75.

Management and Employees

Directors

ALL associations, except 4, have 7 directors. Two have 9 and 2 have 5 directors. Their term of office in all associations except 6 is 2 years. It is 1 year in 2 associations, 3 years in 3 cooperatives, and 5 years in 1 organization. In most cases the terms of office are staggered so that only part are elected each year. Directors may be reelected for two or more consecutive terms without being required to miss a term or a year.

Thirty-four cooperatives reported



Regular meetings of boards of directors determine policies that guide managers of local cooperatives.

that candidates for board service are selected by a nominating committee and from the floor, and six reported they were nominated only from the floor.

One-fourth of the 40 reporting associations did not pay directors for attending meetings, and almost half (18 associations) paid them $5 a day in 1950. The other 12 paid various amounts as indicated by the following tabulation.

Amount of pay	*Number of co-ops*
None	10
$5 a day	18
$5 a day plus $2 for long meetings	1
$2.50 a meeting	1
$2 a day or meeting	1
$3 a day plus 6 cents a mile	1
$3 a day plus 5 cents a mile	1
$4 a meeting	4
5 cents a mile both ways	1
6 cents a mile	1
$10 for regular meetings and $5 for on-call meetings	1
Total	40

The board meets monthly in 12 cooperatives, from 5 to 8 times a year in 5 co-ops, quarterly in 16 associations, 3 times a year in 2 co-ops, and twice a year in 3 organizations. Thirty-two have executive committees of 3 members which meet monthly and on-call. One has an executive committee of 5 members.

Managers

Managers of the 40 reporting associations ranged from 26 to 66 years in age in 1952. One was in his twenties, 10 were in their thirties, 18 were in their forties, 8 were in their fifties, and 3 were in their sixties.

Length of time the managers had been in their present position ranged from 6 months to 17 years. Fourteen had less than 5 years, 15 had from 5 to 9 years, and 11 had 10 years or more. Only a few reported any management experience in other cooperatives.

Previous business experience of the managers varied greatly as indicated by the following tabulation.

Type of experience:	*Number of managers*
Farming	14
General store	9
Extension service or other agricultural agencies	7
Bookkeeper or office manager	2
Cotton merchant	3
Teacher	3
Other (auditor, oil station, salesman, trucker, laborer)	9
Total	47

Since several had experience in two or more of these lines, the total exceeds the actual number of managers.

Education of the managers was reported as follows:

Type of education:	*Number of managers*
Grade school only	5
High school graduate	11
College less than 4 years	14
College graduate	10
Total	40

Twelve managers received a straight salary during 1951–52, and 28 received a salary plus a percentage of the annual net savings of the cooperative—commonly referred to as a commission. Of the 12 managers on a straight salary basis, 3 received less than $3,000 a year, 5 received from $3,000 to $3,599, and 4 received $3,600 or more. The range was from $1,025 to $4,980 with the average $2,828—equivalent to 1.26 percent of the supply volume in 1951–52.

In one association, however, a man who had other employment managed the co-op as an extra job at a small wage. If the salary of the previous manager had been used, the average for the twelve would have been $3,073—equivalent to 1.37 percent of the supply volume.

Half of the 28 managers had been on the commission system less than 5 years and the other half from 5 to 15 years. The pay received by these managers is shown in the following tabulation.

Amount of pay:	*Number of managers*
Under $3,600	1
$3,600–$4,799	7
$4,800–$5,999	8
$6,000–$7,199	9
$7,200 and over	3
Total	28

The range was from $3,099 to $8,553. The average was $5,382, or 1.72 percent of their supply volume. Approximately half their pay came from salaries and half from their share of the net margins. Their base salary ranged from $1,200 to $4,800 and averaged $2,759, or 0.88 percent of the supply volume. The amount of commissions received, based on net margins, ranged from $803 to $7,053 and averaged $2,623, or 0.84 percent of the supply volume.

The proportion of total net margins these managers received as commissions ranged from 5 to 25 percent of the total in all except two cases where the rates were graduated as indicated by the following tabulation.

Percent of net margins:	*Number of managers*
5	4
10	8
15	1
20	5
25	6
Graduated	4
Total	28

One association using a graduated system paid the manager a base salary plus 50 percent of the first $1,000 of net margins and 10 percent of the remaining amount of net margins. Another paid a base salary plus 10 percent of the first $10,000 of net margins, and 3 percent of the remaining net margins. Only dividends and revolving equities received in cash from M. F. C. were included in this computation. A third association paid a base salary plus 10 percent of the first $2,000 of net margins, 15 percent of the second $2,000, 20 percent of the third $2,000, and 25 percent of the remaining net margins. Dividends on stock received from M. F. C. were excluded in this compilation. The fourth association paid a base salary plus 10 percent of all net margins in excess of $5,000. One association reported that it started out the manager of its new branch

station on a commission of 0.5 of 1 percent of cash sales.

All except three associations, therefore, used the patronage refunds and dividends on stock received from M. F. C. as well as local operating margins in computing the managers' share. One excluded both, another included only dividends on stock and old equities received in cash from M. F. C., and the third included only patronage refunds received. Only one association placed a maximum on the amount which the manager could earn in salary and commissions during the year.

The general trend has been to raise the base salary and lower the rate of commissions as the associations become larger and more successful. In the early days some managers received as much as 50 percent of the net margins as commissions. In addition to a small base salary, a number of those now receiving 5 or 10 percent originally started out on a 20 or 25 percent basis.

Most managers did not object to this trend because they preferred a relatively good salary with some incentive provisions rather than a system which might result in greater fluctuations in pay. Practically all who received a portion of the net margins liked the plan and reported few complaints about it from members. Several managers on straight salaries indicated that they would favor receiving a small percentage of the net margins. They believe that such a system would encourage managers to increase volume and to operate the business more efficiently.

Operating statements of the two groups of associations employing managers on salaries and on salaries plus commissions will be analyzed and discussed in a later section of this bulletin on pages 98–103.

Employees

In addition to the managers, the 42 member associations in 1950, the latest year data were available, had 98 full-time employees engaged in management and office work and 100 full-time employees working in warehouses and various services. These associations employed approximately 12 additional office employees and 100 warehouse employees on a temporary basis during the peak seasons of the year.

None of these employees in 25 cooperatives were related to the manager or the board of directors. Thirteen associations reported that each had one relative employed who frequently did bookkeeping on either a full-time or part-time basis.

Operating statements of 39 associations for 1951–52 showed they spent an average of $4,798 for full-time assistants and bookkeepers and 37 reported an average expenditure of $2,140 as wages to other employees. This totaled $6,938 per association, or 2.33 percent of supply purchasing volume. (See table 33 in a later section of this bulletin, page 95.) Detailed information was not obtained on the rates or amounts paid for various full-time jobs, but it appeared that the first assistant to managers received an average salary of about $2,400 a year; the bookkeeper about $1,800; and a warehouse laborer about $1,500 a year.

Several managers favored paying a flat bonus to their regular employees who had sales and bookkeeping responsibilities, if the cooperative had a successful year. Six associations reported paying such bonuses in 1951–52 with the amount ranging from $100 to $500 each. Most associations gave regular employees from 1 to 2 weeks' vacation on full pay.

Only one association paid employees other than the manager a commission based on a percent of the net margins, in addition to a regular salary. The bookkeeper and the first assistant were on this basis because they had been with the organization several years and had definite responsibilities in conducting the business. The bookkeeper received 5 percent, the first assistant 7 percent, and the manager 10 percent of the net margins. Managers as a rule opposed paying a proportion of the net margins to the employees because most of them had no management or sales responsibilities and only worked in the warehouse unloading merchandise and filling orders for patrons.

Total Employee Cost

Forty associations paid $184,623, or an average of $4,615, for management in 1951–52. This represented 1.61 percent of their supply volume and 26 percent of total expenses. (See table 33, page 95.) Thirty-nine of these reported paying $187,113, or an average of $4,798, for assistants and bookkeepers; and $79,183, or an average of $2,140, as wages for laborers. This was a total payroll of $450,913, or an average of $11,273 per association, which was equivalent to 3.94 percent of supply volume. When social security taxes and workmen's compensation insurance of $10,081 and retirement insurance of $674 were added, total employee cost was $461,674, or $11,542 per association. This was equal to 4.04 percent of supply volume and 64 percent of total expenses.

The directors' expense reported by 33 associations totaled $7,077, or $214 per reporting association—equal to 0.06 percent of supply volume.

Facilities

LOCAL associations since 1936 have made much progress in acquiring more adequate facilities for handling farm supplies. At that time, 7 associations did not have warehouses—distributing supplies only direct from the car door and 12 cooperatives operated warehouses only during the spring and fall months. By 1953, 35 of the associations financed and supervised by M. F. C. owned at least 1 warehouse and the remaining 5 each leased 1 or more.

Type and Amount Invested

Purchasing cooperatives in Mississippi conduct their business from warehouses or stores which contain an office and display space for miscellaneous supplies and seeds in the front. Some warehouses were lo-

cated along the railroad while others were on or near the square in the county seat. Many associations had one or more additional warehouses along the railroad for storing fertilizer. The total cost of the buildings owned by 35 associations was $494,230, or $14,121 per organization.

Nineteen associations reported that they owned 30 warehouses and 5 of these rented 6 additional warehouses. The most common sizes were 40′ x 60′ and 40′ x 100′. The warehouse floor space reported by 19 associations is shown in the following tabulation.

Warehouses (square feet):	*Associations*
Under 2,000	1
2,000–2,999	3
3,000–3,999	2
4,000–5,999	2
6,000–7,999	2
8,000–9,999	3
10,000–11,999	1
12,000–14,999	3
15,000 and over	2
Total	19

In addition to land and buildings, 25 associations had invested $126,545, at cost value, in 48 trucks for hauling supplies to their warehouses and to farms. Twenty-nine owned other equipment costing $200,930, which consisted of cold storage and locker equipment, seed cleaning equipment, lime and fertilizer distributors and spreading equipment, and other service equipment. Various services provided for farmers will be discussed in a later section of this bulletin.

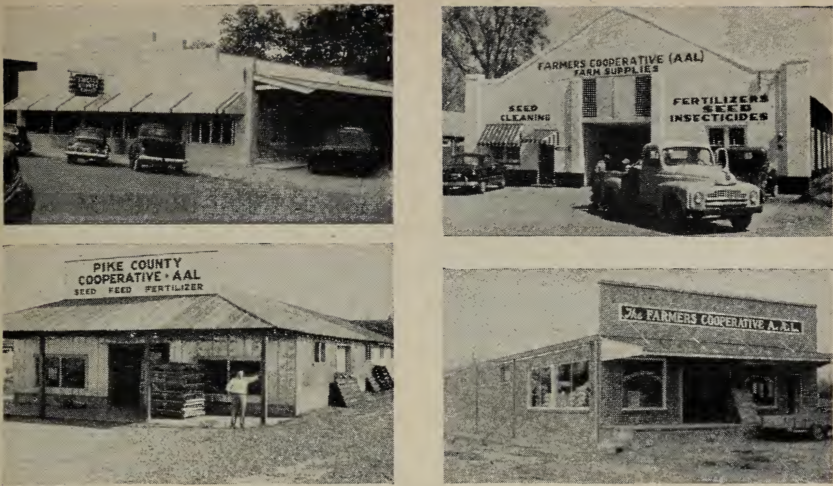
Thirty-nine of the forty associations under the financing and supervision agreement with M. F. C. had total fixed assets with a cost value of $968,889 on June 30, 1952, or an average of $24,843 per association. Their depreciated value was $636,771, or an average of $16,327. (See table 31.)

Future Needs

Several associations indicated that they now needed more warehouse space or soon would if their volume continued to grow as it had in recent years. Also one needed more office space, two desired a small elevator for handling grain, and one wanted a truck and spreader. Estimates by ten managers indicated that about $85,000 would be required for needed facilities.

Table 31.—Facilities owned by 39 member cooperatives, June 30, 1952

Type	Co-ops owning each type	Average cost value for those with each type of facility
Land	18	$3,388
Buildings	35	14,121
Furniture and fixtures	39	2,210
Equipment	29	5,928
Trucks	25	5,062
Feed mills	2	14,503
Total	39	$24,843



These pictures illustrate types of warehouses of four county cooperatives. Upper left is the Lincoln County Cooperative (A. A. L.) Brookhaven, and upper right that of Farmers Cooperative (A. A. L.), Port Gibson. Lower left is the Pike County Cooperative (A. A. L.), McComb, and lower right, The Farmers Co-operative (A. A. L.) Eupora.

Most stores or warehouses contained a separate office for the manager and bookkeepers and several offices were air-conditioned. All should have separate offices for efficient work by the office staff and for the use of management in discussing credit and other problems with patrons and others.

Most associations need more space for displaying miscellaneous supplies—especially if they handle an increased amount and variety. Perhaps a "miscellaneous supplies" committee of local managers should study this problem, along with that of displaying supplies, and make recommendations for M. F. C. representatives who work with locals. Their study should cover such problems as the desirability of an entirely separate supply room and the amount of space needed for two or three different ranges in annual volumes of miscellaneous supplies.

Several managers did not have definite ideas as to the amount of general warehouse space they needed. As a result of shortages in fertilizers and difficulties in getting various supplies in the past, some associations have acquired considerable space for storing supplies. Other cooperatives which need to enlarge or build new facilities may encounter such questions as the size and type of building, location, amount to invest, and proportion of cost to raise directly from members.

A "warehouse committee" of local managers should also be established to study these problems and work out guides or standards for size of warehouse in relation to

Warehouse and seed cleaning plant at rear of Alcorn County Cooperative (A. A. L.), Corinth.

annual and peak season volumes and advance storing, and guides with respect to location, type of building, and other factors mentioned. The relation of local storage to that provided by M. F. C. at its fertilizer plants and seed warehouses should also be taken into account in such a study.

Operating Methods

SINCE 1936 the local cooperatives affiliated with M. F. C. have become full fledged supply purchasing and distribution businesses. All now have warehouses and full-time managers, and most operate one or more trucks for delivering supplies to patrons.

Purchasing Supplies

Many purchasing cooperatives began operations by assembling advance orders from farmers for pool railroad cars of seed and fertilizer, and farmers took deliveries direct from the cars. In 1952, however, most cooperatives in Mississippi, as well as in other States, purchased supplies outright and then sold them to farmers. Various amounts are warehoused depending upon the types and seasons.

Kinds and Amounts To Handle

The manager and board of directors determine the types of supplies to handle but usually any proposed new line is discussed with members personally and at annual meetings before it is added. The associations haven't made formal surveys or polls to determine the desires and opinions of members. Generally a few associations first take on a new item, such as veterinary supplies, and M. F. C. then makes their experience available to others interested.

Managers determine the amount of supplies to stock in a combination of ways. Perhaps the most common is by replacing commodities on the basis of the past one or two years' monthly and seasonal volumes. Most managers daily contact producers to determine anticipated demand, and they consult M. F. C. department personnel to determine the time and the quantity of supplies to purchase. Managers also consider practices county extension agents are emphasizing, such as pasture improvement. Furthermore, monthly or quarterly operating statements and physical inventories help show man-

agers slow-moving inventories.

Sources of Supplies

M. F. C. furnished most supplies purchased by county cooperatives, with the exception of feed and certain types of miscellaneous supplies. Member associations, unless authorized otherwise, are required under the provisions of the membership agreement to procure all of their supplies through M. F. C. except those not handled by it. This provision, however, is not strictly enforced as M. F. C. gives managers rather wide latitude in conducting their operations so long as they handle them successfully.

In 1951–52 county cooperatives purchased 67 percent of their supply volume, exclusive of feed and veterinary supplies, through M. F. C. The range was from 55 to 87 percent. Feed came direct from mills with M. F. C. receiving a brokerage. Local co-ops bought a higher proportion of their fertilizer than other items from M. F. C., followed next by seed and miscellaneous supplies. In earlier years, a smaller percentage of all supplies was bought through M. F. C. because it did not have a sufficient supply of fertilizer to meet the demand and did not carry as large a stock of miscellaneous supplies as in 1951–52. Also, it was less able to provide seed before acquiring its seed processing plant and warehouse, but local associations will always obtain some locally grown seed for meeting their requirements.

M. F. C. encourages local managers to order fertilizer and seed well in advance of the seasons when they will need such supplies, and also to take early delivery on fertilizer so that more space will be available in the mixing plants. A number of associations do not follow this procedure to the extent they might—especially in seeds. They expect M. F. C. to have supplies on hand whenever they want them and thus carry most of the inventory risks.

M. F. C. does not give county associations quantity or cash discounts on their purchases since they loan them operating capital. In only a few cases have two or more associations pooled their orders for a full car of seed or other supplies. One of the main changes occurring since 1936 in supply purchasing has been moving supplies from plants and warehouses to local co-ops by trucks rather than railroads.

Distributing Supplies

Pricing and Delivery

Considerable uniformity exists among the associations in pricing supplies, as most of them attempt to follow the recommendations of M. F. C. Their objective is to realize an average markup of 10 percent above cost, or a gross margin of about 9 percent on the sales value. The average gross margin realized in 1951–52 was 8.6 percent of sales. There is, of course, variation among different types of supplies, with feed and fertilizer averaging below 10 percent and some seeds and miscellaneous items averaging considerably above this amount. As a general rule these cooperatives sell supplies at prevailing local market prices.

Farmers come to the warehouses

for a large proportion of their supplies. Not many take delivery directly from railroad cars or tractor-trailers. One of the main changes in distribution methods since 1936 has been the increase in delivery of supplies to farms by association trucks. Twenty-five of the forty reporting associations owned 48 trucks for delivering supplies to farmers, 9 others rented about 20 trucks for such purposes, and 6 neither owned nor rented trucks. The rates charged for various trucking and spreading services are discussed in a later section of this report on pages 112–115.

Volume Discounts

Nineteen of thirty-two associations reporting gave volume or quantity discounts on fertilizer to farmers. Considerable variation existed in the amount of discounts and in the minimum size of purchases for which they were granted, but as a rule, discounts ranged from $1 to $2 a ton for quantities varying from 10 tons to 30 tons or a carload. (See table 32.) Three associations indicated that volume discounts of around $2 a ton were given on feed.

Managers of local associations differed on the advisability of giving quantity discounts. Some were opposed to the principle in a cooperative stating that all members should be treated alike and that the objective is to pool purchasing power for the benefit of all. A few mentioned that it was difficult to establish the correct amount of discount for various minimum quantities and justify them to members whose purchases were slightly under the stipulated amounts. Also, several believed that such discounts tended to encourage price cutting and inadequate margins, especially harmful to associations which lacked working capital. Several indicated, however, that if discounts were given, they should be limited to carlot purchases, or to less-than-carlot purchases where the farmer took delivery direct from the car or mixing plant, because extra handling costs in moving supplies to the warehouse and later into the farmers' trucks would be eliminated.

On the other hand, those managers favoring volume discounts indicated they were in line with standard business practices; they helped to build volume; they were necessary to get the large farmers as patrons; and there was actually less expense in handling one large order than several small ones.

Some managers took advance orders or bookings on certain items, particularly fertilizer, and encouraged farmers to take early delivery if possible. Few associations, however, gave special discounts to farmers for taking delivery of the fertilizer ahead of the planting seasons.

Merchandising

Most associations did some advertising in local newspapers and a few sent special news letters, leaflets, or postcards to patrons about various supplies. All associations send the M. F. C. Co-op News to members which carries some advertising and educational information on the recommended use of fertilizers and seeds in Mississippi. None of the associations or M. F. C.

Table 32.—Discount given for minimum quantities of fertilizers by 19 member cooperatives, 1952

Discount per ton	Minimum quantity	Number of associations
$0.25	5 tons	1
$0.50	10 tons	
$0.75	15 tons	
$1	20 tons	
$1	6 tons	1
$2	10 to 15 tons	
$1.50	10 to 24.9 tons	1
5 percent	25 to 30 tons	
$1	10 tons	2
$1.50	30 tons	1
$2	10 tons	1
$2	30 tons	1
$4–$5	30 tons	1
2 percent cash	5 to 9.9 tons	1
4 percent cash	10 to 14.9 tons	
6 percent cash	15 to 19.9 tons	
8 percent cash [1]	20 to 29.9 tons	
10 percent cash [1]	30 or more tons	
Discounts given but rates and minimum quantities not reported		9
Total		19

[1] No patronage refund paid on these purchases.

have sponsored sales contests or given special awards for increases in volume over the previous year except as this would be reflected in net margins and greater commissions for those using such a system. As mentioned, not all cooperatives have adequate space and arrangements for displaying general supplies.

Possible Improvements

Distribution practices of local associations might be improved by:

(1) Taking more advance orders for early delivery of fertilizer and other supplies. One manager reported that he spent considerable time calling on farmers and booking various items. This proved worth while both from the standpoint of building volume and better understanding of the association.

(2) Improving the display of miscellaneous farm supplies.

(3) Providing employees with more training and information on merchandising such items.

(4) Sponsoring, by the State association, of contests with awards to those local cooperatives attaining specified volume quotas and increases over the previous year.

Credit Practices

Local associations under the terms of the financing and supervision agreement with M. F. C. agree to sell supplies to patrons for cash, unless authorized otherwise. During 1951–52 ten associations were either entirely or almost on a cash basis. Three of these reported no credit sales, four reported less than 2 percent, and the other three less than 5 percent credit business.

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Paying cash for supplies purchased helps keep co-ops financially sound and able to pay back in cash deferred refunds under revolving capital system.

The remaining associations indicated that they operated on a 30 days' credit basis but some were quite lax in adhering to it. Three, however, indicated that credit on feed was limited to 15 days. One organization had recently adopted a new policy providing that if a patron's account was not paid within 60 days he would not be granted further credit, and at that time interest at 8 percent a year would begin on the outstanding account.

Credit business constituted 37.6 percent of total supply sales by the 40 associations studied in 1951–52. The number with various proportions of credit business are shown by this tabulation.

Percent credit sales:	*Associations*
Less than 5	10
5 to 24.9	8
25 to 49.9	10
50 to 74.9	9
75 and over	3
Total	40

A few associations reported using a credit committee of directors to pass on credit extension. The others left this largely to the managers, although they frequently consulted with directors at board meetings. Some boards of directors apparently have not adopted a definite credit policy while others have not stood behind or strictly enforced the policy which was adopted. In other cases the manager has been too lax in extending credit or in collecting outstanding accounts.

Thirty-nine of the forty associations financed and supervised by M. F. C. had $610,706 of notes and accounts receivable outstanding on June 30, 1952—an average of $15,659 an association. After deducting reserves for doubtful accounts, net receivables averaged $13,685 per association. In several associations the peak amounts were 4 to 5 times the lowest amounts of receivables outstanding during the year.

Fifteen associations had less than 10 days' total sales of supplies still

in accounts receivable at the end of the year; another 15 had from 10 to 19 days, and the remaining 10 associations had from 20 to 31 days' sales still uncollected.

Of open or unsecured accounts receivable totaling $583,221 on June 30, 1952, 46.9 percent were 1 to 30 days old, 21.3 percent were 31 to 60 days old, 12.7 percent were 61 to 90 days in age, and 19.1 percent were over 90 days old.

Losses from bad debts, however, were quite low in most associations—usually ranging from only $500 to $800 since organization. One, however, had incurred a loss of $18,000 and another $13,000 since organization. Other comparisons relating to receivables are contained on pages 119–131 in a later section dealing with the operating results and financial position of these associations.

Wide variations existed among the 40 associations in the manner in which they handled credit. Managers and directors of over half the associations need to be more strict in granting credit and collecting accounts. Eighteen associations, however, did less than one-fourth of their business on credit and 15 of these had less than 10 days' total sales still in accounts receivables at the end of the year. Logically, other associations could handle this problem in an equally businesslike manner.

Some farmers will need credit to purchase feed and oil products, at least on a short-term or accommodation basis. If local cooperatives are to grant credit on such supplies, they will need more operating capital and better credit handling practices. If they do not grant credit, local managers and directors will need to direct some patrons to credit handling agencies, such as local banks and production credit associations, specializing in this field. And these managers and directors will need to be able to explain why it is inadvisable for the local cooperative to extend credit.

Accounting and Patronage Refunds

The 40 county associations under the financing and supervision agreement with M. F. C. used standard accounting systems. They keep a good set of records with patrons' purchases classified according to the main supplies handled and expenses itemized in detail. All associations have at least four categories of sales, namely fertilizer, seed,

Accurate records of each patron's equity in the cooperative are required for distributing patronage refunds and retiring equities under revolving capital plans.

feed, and miscellaneous supplies. A few also itemize miscellaneous items on the basis of cotton poisons, hardware, and veterinary supplies. They send monthly operating statements to M. F. C. and prepare physical inventories quarterly in most cases.

Where purchasing, marketing, and service operations are significant, local co-ops keep records on each on a departmental basis. They charge both direct and general overhead expenses of the cooperative to the purchasing department, so that net margins on local supply operations can be determined. Direct expenses, however, are only charged against service and marketing operations unless they are important phases of the business. These co-ops show net margins on local operations and then add dividends on stock and patronage refunds from M. F. C. to ascertain total net margins.

The auditing department of M. F. C. makes audits of these associations at least annually, and generally semiannually. Audits contain a large amount of detail with analyses and recommendations on bookkeeping, operating, and financial problems.

The 40 associations record all sales tickets and maintain patronage records for all patrons. Associations pay one rate of refund on all supplies even though M. F. C. pays different rates on certain types purchased by local associations. Local cooperatives also disburse patronage refunds on cotton marketing declared by M. F. C. to growers in their area.

While practically all of the business of these associations is with producers of agricultural products, they have a number of both producer and nonproducer patrons who buy only small amounts or who patronize the association only occasionally. Keeping patronage records on these patrons and notifying them of their refunds as well as paying out older equities under the revolving capital plan entails a large amount of bookkeeping.

Several associations have adopted a service charge or fee ranging from 25 cents to $1 a patron to help eliminate paying small refunds and keeping small patron equity accounts for several years. Some charged this fee each year while others charge it every 2 or 3 years. This appears a desirable practice but of course it does not eliminate daily posting of individual tickets and maintaining patronage records throughout the year.

The uniform system of records of these associations and the uniform audits prepared by M. F. C. are of great advantage for analysis and comparative purposes. Auditors and officials of M. F. C. use this material in meetings with boards of directors and members in analyzing and making recommendations for strengthening local operations. However, further use of this material might be made by preparing annual summaries of the operating statements and balance sheets of the associations—or especially of the best one-fourth or 10 associations. Also, efficiency analysis

meetings could be held for local managers and directors to help train them in analyzing operating and financial statements and in determining methods of improvement.

Farm Supplies and Equipment Handled

Types and Volume

TOTAL volume of supplies handled by member cooperatives has increased almost five times since 1945–46. The median volume of the 40 associations studied was $287,000 in 1951–52.[9] The range was from $63,457 to $618,537 with the highest one-fourth exceeding $370,000. Three handled less than $100,000, 5 were in the $100,000 class, 13 were in the $200,000 group, 15 were among the $300,000 volume, 2 handled $400,000, and 2 exceeded $500,000.

All associations handled fertilizer, seed, and miscellaneous supplies and 31 handled feed. Most associations did not keep records of quantities of various supplies handled, but the quantities distributed by M. F. C. serve as a good criterion of the combined quantities of the locals.

Fertilizer

Volume of fertilizer handled by cooperatives has increased about six times dollarwise during the last 7 years as indicated by the tabulation on this page.

[9] The median is the midpoint when the volumes are arrayed from largest to smallest. Thus, 20 co-ops had volumes above $287,000 and 20 were below this amount. The average was $285,876.

Fiscal year:	*Patrons' purchases*
1945–46	$977,782
1946–47	2,114,148
1947–48	2,903,148
1948–49	3,971,354
1949–50	3,979,752
1950–51	4,891,228
1951–52	6,128,068

Average amount handled in 1951–52 by 39 cooperatives was $57,130 an association, representing 54 percent of their total supply volume. The range was from $40,662 to $319,844. Included were mixed goods, straight materials, basic slag, and lime. Eight associations itemizing lime sales sold an average of $2,045 a cooperative. Two associations itemized TVA phosphate and nitrate sales separately.

Local cooperatives sold approximately 190,000 tons of fertilizer mixtures and materials in 1951–52, equivalent to about 25 percent of the total fertilizer used in Mississippi and 31 percent of that used in the upland counties that year.

Seed

Volume of seed handled last year was over three times that in 1945–46, as indicated by this tabulation.

Fiscal year:	*Patrons' purchases*
1945–46	$818,470
1946–47	1,319,561
1947–48	1,311,026
1948–49	1,751,632
1949–50	1,949,215
1950–51	2,375,032
1951–52	2,517,588

Seed volume in 1949–50 equaled about 22 percent of total expenditures by Mississippi farmers in 1949 for seeds, bulbs, and plants and 45 percent of upland county purchases, according to the U. S. Census of Agriculture. Average volume per association was $64,553, or 22 percent of their total supplies. Seed volume ranged from $14,703 to $211,485 in these associations.

Feed

Volume of feed handled by local associations has almost tripled in the past 7 years, as indicated by the tabulation on this page.

Fiscal year:	Patrons purchases
1945–46	$563,603
1946–47	1,025,961
1947–48	1,048,522
1948–49	1,034,917
1949–50	1,028,513
1950–51	1,267,790
1951–52	1,557,421

Feed volume in 1951–52 constituted 14 percent of the total supply sales of the 40 associations. Average volume of the 31 associations handling feed was $50,239 and the range was from $955 to $232,678 among the group. Feed business of these cooperatives in 1949–50 was approximately 18,000 tons and represented about 4 percent of the total feed purchased by Mississippi

Mixed fertilizer, ammonium nitrate, field fence, and motor oil, along with fertilizer distributor for rental by the Hinds County Cooperative (A. A. L.), Jackson, are shown here. This is typical of the supply service programs of member cooperatives of M. F. C.

farmers in 1949, and 5 percent of purchases in the upland counties, according to the U. S. Census of Agriculture. (Total purchases, however, included some feed and feed grains bought from other farmers as well as from commercial firms.)

Miscellaneous Supplies

The principal items in this group were insecticides, heavy hardware, and miscellaneous production supplies and equipment. Only one association handled a regular line of refrigerators, stoves, radios, and appliances. Two associations kept separate sales records of veterinary supplies, averaging $801 a cooperative.

The volume of miscellaneous supplies and equipment has increased greatly during the past 3 years as indicated by this tabulation.

Fiscal year:	Patrons purchases
1945–46	$85, 395
1946–47	164, 393
1947–48	237, 673
1948–49	246, 076
1949–50	718, 774
1950–51	1, 456, 355
1951–52	1, 161, 194

Miscellaneous supplies were handled by all 40 associations and represented 10 percent of their total supply business in 1951–52, averaging $29,774 an association. Volume for the group ranged from $7,388 to $66,474. Data are not available on total purchases of such supplies by farmers in Mississippi.

Operating Results

Gross Margins and Other Revenue

The 40 associations studied had gross margins on total supplies averaging $24,518 in 1951–52—equal to 8.6 percent of purchasing

Miscellaneous farm supplies handled by Madison County Cooperative (A. A. L.), Canton.

volume. (See table 46 on p. 120.) The range was from 5 to 13.4 percent with the highest one-fourth exceeding 9.7 percent.

Gross margins on fertilizer averaged 8 percent and accounted for approximately 50 percent of total gross margins. The range was from 3.7 to 10.7 percent with the highest one-fourth exceeding 9.25 percent. The gross margin on seed averaged 10.8 percent and accounted for a little over one-fourth of the total of all supplies. The range was from 5 to 17.8 percent with the highest one-fourth exceeding 12.35 percent.

Feed had an average gross margin of 7.3 percent and feed margins constituted about 12 percent of the total. The range was from —1.4 to 16.6 percent with the highest one-fourth exceeding 8.2 percent. Miscellaneous supplies had gross margins averaging 8.4 percent which represented about 10 percent of the total realized on all supplies. The range was from —11.3 to 17.5 percent with the highest one-fourth exceeding 11.1 percent.

Other revenue consisting of cotton commissions averaging $287 and miscellaneous receipts averaging $679 an association amounted to 0.3 percent of purchasing volume.

Expenses

Expenses of the purchasing departments included general overhead and administrative costs of the associations, direct expenses of minor services, and direct expenses of minor marketing operations.

Total expenses in 1951–52 for the purchasing departments were $717,508—an average of $17,938 an association, or 6.3 percent of purchasing volume. (See table 46 on p. 120.) The range was from 3.1 to 9.5 percent with one-fourth of the co-ops having less than 5.5 percent expense. Number of associations having various expense percentages are shown in the following tabulation.

Percent expenses:	*Associations*
3–3.9	4
4–4.9	4
5–5.9	9
6–6.9	10
7–7.9	7
8–8.9	4
9–9.9	2
Total	40

Table 33 includes an itemized list of expenses of the 40 associations. Managers' salaries and commissions were 1.6 percent of volume and about 26 percent of total expenses. Other salaries and wages amounted to 2.3 percent and when other employee expenses were included, total employee costs were 4 percent of purchasing volume and 64 percent of total expenses.

Other important expense items were depreciation which averaged about 0.4 percent; interest, 0.3 percent; and insurance and bonds, 0.3 percent.

Net Margins

Net local operating margins realized by purchasing departments in 1951–52 totaled $301,843 and averaged $7,546 an association. This was equal to 2.6 percent of the supply purchasing volume. (See table 46, p. 120.) Dividends and refunds from M. F. C. and other cooperatives on supplies totaled $346,486, or $8,662 a cooperative, equal to 3 percent of local sales.

Additional Possibilities

While these local cooperatives have greatly increased their volume in recent years, they could further improve their efficiency and services to farmers by handling more of their present supplies and by adding other farm supplies. Cooperatives must have adequate volumes if they are to be effective in pooling the purchases of individual farmers; in making maximum use of facilities and personnel; and in keeping handling costs per unit to a minimum. The analysis in the following section indicates that those cooperatives handling less than $300,000 of supplies a year had expenses of approximately 7 percent for each dollar of busniess compared with 5.9 percent for those with more than this volume.

Feed perhaps offers the greatest opportunity for further service, as 31 local co-ops now handle only about 5 percent of the feed volume in the State. The other 12 associations could develop a substantial volume. Also, several counties with heavy feed consumption do not

Table 33.—Combined operating expenses of purchasing departments of 40 member cooperatives for the fiscal year ended June 30, 1952

Item	Total	Average			
		Of 40 coop-eratives	Percent of vol-ume	Of those listing each item	Number listing items
Manager's salary	$111,179	$2,779	0.97	$2,779	40
Manager's commission [1]	73,444	1,836	.64	2,623	28
Subtotal	184,623	4,615	1.61	4,615	40
Full-time assistant	103,982	2,600	------	3,121	33
Bookkeepers	57,866	1,446	------	1,929	30
Other salaries	25,265	632	------	1,011	25
Subtotal	187,113	4,678	1.64	4,798	39
Wages—full time	43,087	1,078	------	2,154	20
Other wages	36,096	902	------	1,003	36
Subtotal	79,183	1,980	.69	2,140	37
Total payroll expense	450,919	11,273	3.94	11,273	40
Social Security taxes and workmen's comp. ins.	10,081	252	.09	272	37
Retirement insurance	674	17	.01	225	3
Total employee cost	461,674	11,542	4.04	11,542	40
Advertising	13,287	332	.12	332	40
Annual meeting expense	2,683	67	.03	99	27
Bad debts reserve	4,949	124	.04	450	11
Director's expense	7,077	177	.06	214	33
Donations	3,955	99	.03	136	29
Dues and subscriptions	4,284	107	.04	113	38
Exchange and bank charges	2,951	74	.03	84	35
Heat, light, and water	7,790	195	.07	200	39
Insurance and bonds	36,922	923	.32	923	40
Legal and audit	2,054	51	.02	158	13
Maintenance and repairs	5,188	130	.04	140	37
Miscellaneous	8,112	203	.07	219	37
Office supplies	13,489	337	.12	346	39
Pest control	1,394	35	.01	66	21
Postage and box rent	3,588	90	.03	94	38
Rent	20,313	508	.18	700	29
Taxes	11,465	286	.10	318	36
Telephone and telegraph	20,319	508	.18	508	40
Travel	5,166	129	.04	157	33
Truck expense	513	13	(2)	103	5
Warehouse supplies	3,058	76	.03	105	29
Depreciation	41,239	1,031	.36	103	40
Subtotal (before interest)	681,470	17,037	5.96	17,037	40
Interest	35,804	895	.31	1,055	34
Total expenses [1]	717,274	17,932	6.27	17,932	40

[1] These are less than those in tables 34 and 46 because they do not contain commissions paid other employees by one association.
[2] Less than 0.005 percent.

have purchasing cooperatives. Figure 1 on page 5 showed that the counties with largest expenditures for feeds in 1949 were those in the northwestern corner of the State, and Lee, Oktibbeka, Scott, Newton, Smith, Pike, Walthall, and Amite counties. Local co-ops can increase their volume of cooperatively manufactured feed, available through M. F. C., with better training and merchandising programs for local employees.

The potential for miscellaneous supplies and equipment also is large. If livestock farming increases, farmers will need more dairy and poultry equipment, water systems, fencing, roofing, and veterinary supplies. Most associations can improve their supply operations by better stocking and displaying merchandise, and by special schools or training programs for local personnel. Several associations plan to handle more heavy hardware, such as fencing, roofing, and grain bins. Also, portable sprinkler irrigation equipment may become a more important farm item.

Deciding the number and variety of supply items to handle in a rather limited space requires caution. Most associations do not have the finances and management to handle electrical and other home appliances and equipment. Also, these associations probably should not undertake to handle a regular line of farm machinery until they become strong enough to finance and service it so as to provide important benefits to farmers. They should concentrate their efforts and capital on other basic production supplies such as fertilizer, seed, feed, petroleum products, and general farm supplies and equipment.

Many associations can handle more fertilizer volume. Figure 2 on page 6 shows areas of heaviest use. Perhaps more field work by managers and awards or recognitions would help. Associations should consider distributing anhydrous ammonia by tank truck from bulk plants to farms. Local associations at Clarksdale and Lumberton, Miss., Osceola, Ark., and at several points in Missouri are now providing such a service.

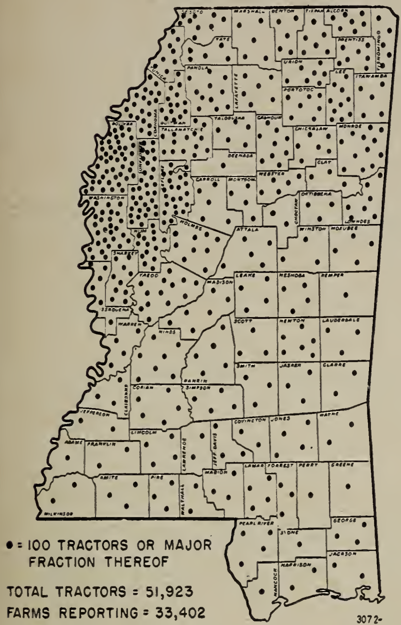
Good seed, of course, is one of the most important supplies in profitable farming. Local cooperatives can improve their seed volume by working closely with M. F. C. in supplying farmers with high quality seed adapted to their area.

Great increases in farm tractors and trucks and in petroleum fuel used for household and other farm purposes has resulted in expenditures for oil products becoming an important Mississippi farming cost. While Delta farmers used a large part of the 108 million gallons estimated purchased by farmers during 1947, upland farmers also used a sizable amount.

Experiences of a few cooperatives in the northern part of the Delta now handling both refined fuels and liquefied petroleum gas indicate that a cooperative petroleum service could be developed in other parts of the Delta, and in the northern portion of the upland area. Several associations were considering adding petroleum departments.

Figure 8.—Number of tractors, trucks, and automobiles on farms in Mississippi, January 1, 1950.

Tractors



Trucks

Automobiles

Farm cooperatives should build their oil program around farm delivery service from bulk plants to farms. Some, however, could use one or two curb pumps to service their own equipment and that of patrons. Number of tractors on farms, now using about one-fourth of the fuel consumed on Mississippi farms, is the best guide for determining areas of largest potential for farm delivery service. Largest number of farm tractors in the upland section of the State is in the northern half. (See fig. 8.) Farm trucks and automobiles, fairly evenly distributed over the State, each used about one-fourth of the total farm fuel in Mississippi in 1947. (See Appendix table 6 and fig. 8.)

Factors Affecting Supply Operating Results

ANALYSES of the 1951–52 operating statements of the 40 associations showed some effects on operating results of purchasing departments of (1) method of paying managers; (2) volume of business; (3) expenses; (4) purchasing supplies from M. F. C. The analysis also revealed the characteristics- of the 10 cooperatives having the highest and the 10 having the low est net margins.

Table 34.—Effects of employing managers on a commission and on a salary basis on operating results of 40 member cooperatives for the fiscal year ended June 30, 1952

Item	Commission basis		Salary basis	
	Averages of 28 co-ops	Percent of volume	Averages of 12 co-ops	Percent of volume
PURCHASING DEPARTMENT				
Purchases by patrons:				
Fertilizer [1]	$166,042	53.1	$123,240	56.6
Seed	68,439	21.9	50,109	23.0
Feed	45,528	14.6	23,552	10.8
Miscellaneous supplies	32,498	10.4	20,937	9.6
Total—those itemizing	312,507	100.0	217,838	100.0
Total—all co-ops	312,507	--------	223,734	--------
Gross margin:				
Fertilizer	13,097	7.89	10,445	8.48
Seed	7,494	10.95	5,211	10.40
Feed	3,284	7.21	1,837	7.80
Miscellaneous supplies	2,874	8.84	1,401	6.69
Total—those itemizing	26,749	8.56	18,894	8.67
Total—all co-ops	26,749	8.56	19,311	8.63
Other revenue:				
Commissions on cotton	294	.09	272	.12
Miscellaneous	626	.20	802	.36
Total	920	.29	1,074	.48
Total gross margins and other revenue	27,669	8.85	20,385	9.11
Expenses				
General	16,787	5.37	14,268	6.38
Managers' commissions	2,723	.87	0	0
Total	19,510	6.24	14,268	6.38
Net operating margin on supplies plus other revenue	8,159	2.61	6,117	2.73

Table 34.—Effects of employing managers on a commission and on a salary basis on operating results of 40 member cooperatives for the fiscal year ended June 30, 1952—Continued

Item	Commission basis		Salary basis	
	Averages of 28 co-ops	Percent of volume	Averages of 12 co-ops	Percent of volume
MARKETING DEPARTMENT				
Products marketed for patrons—total	$25, 718	100. 0	$222	100. 0
Gross margins on products	595	2. 31	3	1. 43
Expenses for one department	664			
Remaining margin	(−69)		3	
Total purchasing and marketing volume	338, 225	100. 0	223, 956	100. 0
Local net margins before services	8, 090	2. 39	6, 120	2. 73
SERVICE DEPARTMENT				
Gross receipts from:				
Trucking	2, 142		1, 905	
Lime and fertilizer spreading	1, 881		33	
Cold storage and locker rentals	1, 046		757	
Seed cleaning	625		316	
Miscellaneous	535		0	
Total	6, 229	1. 84	3, 011	1. 34
Less expenses on certain service operations	5, 783	1. 71	3, 291	1. 47
Remaining margins on services	446	. 13	(−280)	(−. 13)
TOTAL DEPARTMENTS				
Net margin on local operations	8, 536	2. 52	5, 840	2. 60
Percent of purchasing volume		2. 73		2. 61
Dividends and refunds received:				
Mississippi Federated Cooperatives:				
Dividends on capital stock [2]	1, 248	. 37	1, 183	. 53
Patronage refunds [2]	7, 339	2. 17	5, 421	2. 42
Other cooperatives	374	. 11	1, 361	. 61
Total	8, 961	2. 65	7, 965	3. 56
Percent of purchasing volume		2. 87		3. 56
Total net margins	17, 497	5. 17	13, 805	6. 16
Percent of purchasing volume		5. 60		6. 17

[1] Includes basic slag and lime.
[2] One new association hadn't earned patronage refunds. Higher volume and relatively smaller dividends on stock account for smaller percentage of dollar volume in commission co-ops.

Method of Paying Managers

In this analysis, the operating statements of the 12 co-ops paying managers straight salaries were averaged and compared with those of the 28 paying managers a base salary plus various percentages of net margins, commonly referred to as commissions. The latter group contained 5 associations paying their managers commissions for 10 to 15 years; 9 on this plan from 5 to 9 years; 6 from 3 to 4 years; 4 for 2 years; and 4 for only 1 year.

A change in method of paying may not be fully reflected in operating results during the first 1 or 2 years following its adoption. However, if the 8 co-ops on the commission plan for only 1 to 2 years had been kept in the straight salary group little change would have occurred in the summaries and averages of the two groups because of the wide variations in their volumes and net margins.

It is difficult to accurately measure the effect of one factor on operating results when a number of others influence them. The only significant effects of the commission basis during 1951–52, however, appeared to be in the volume of supplies distributed and the total net margins realized. Gross margins, total expenses, and local net margins on a dollar basis were almost the same for both the salary and the commission groups. (See table 34.) The more important points in the comparisons were:

1. Total purchasing volume of the commission co-ops averaged $312,507, or 40 percent greater than the $223,734 average for the salaried group. A similar relationship existed for each type of supply handled.

2. Gross margins of the commission co-ops averaged 8.56 percent compared with 8.63 percent for the salaried group. Average gross receipts from services of the commission co-ops were about twice as much as those in the salaried associations.

3. Total expenses per dollar of supply business averaged almost the same for the two groups when managers' commissions were included. Further analysis, however, showed that managers total pay in the commission co-ops constituted 1.72 percent of purchasing volume compared with 1.26 percent for the salaried group. The latter had more other wages thus resulting in total employee costs of about the same percentage—3.95 percent compared with 4.06 for the commission cooperatives.

4. Local net operating margins for each dollar of the purchasing departments of the two groups averaged almost the same—2.73 for the commission and 2.61 for the salary co-ops.

5. Dividends and refunds from M. F. C. and others averaged 2.87 percent of purchasing volume in the commission associations compared with 3.56 percent in the salaried group.

6. Total net margins thus averaged $17,497, or 5.60 percent of total volume in the commission associations compared with $13,805

or 6.16 percent for the salaried cooperatives.

Associations employing managers on the commission system sold a greater proportion of their supplies on credit, their receivables at the end of the year were relatively larger, and they did not have quite as strong financial positions as the salaried co-ops. The significant points brought out by a comparison of the two groups in table 35 were:

1. Credit business constituted 41 percent of total supply business for the commission co-ops compared with 26 percent for the salaried group.

2. Open accounts receivable (before reserves for bad debts) at the end of the year averaged $15,169 for the commission co-ops compared with $8,341 for the salaried co-ops. Net receivables (after reserves) represented 33 percent of current

Table 35.—Effects of employing managers of 40 member cooperatives on a commission and a salary basis on selected credit and financial comparisons during fiscal year ended June 30, 1952

Items	Averages of co-ops on:	
	Commission basis (28 co-ops)	Salary basis (12 co-ops)
Credit sales (exclusive of those to Government agencies)	$128, 066	$49, 186
Percent of purchasing volume	41. 0	26. 4
Total open (unsecured) accounts receivable (Gross or before reserve for bad debts)	$15, 169	$8, 341
Total net accounts and notes receivable	$16, 561	$6, 973
Percent net receivables was of current assets	32. 8	18. 4
Percent net receivables was of purchasing volume	5. 3	3. 1
Number of days' total sales or purchasing volume still in open (unsecured) accounts receivable	15. 0	11. 6
Number of days' credit sales still in open (unsecured) accounts receivable	36. 7	43. 7
Percent that open accounts receivable at end of year was of credit sales	11. 8	14. 1
Of total sales	4. 9	3. 7
Total current assets	$50, 451	$37, 990
Total current liabilities	$17, 348	$9, 180
Current assets per dollar of current liabilities	$2. 91	$4. 14
Net current assets or working capital	$33, 103	$28, 810
Purchasing volume per dollar of net current assets	$9. 44	$7. 77
Total cash on hand and in bank	$10, 071	$8, 646
Percent of current assets	20. 0	22. 8
Total cost value of fixed assets	$25, 039	$22, 317
Purchasing volume per dollar of fixed assets	12. 50	$10. 00
Total members' equity	$85, 006	$81, 940
Total assets	$106, 767	$92, 480
Percent members' equity was of total assets	79. 6	88. 6
Purchasing volume per dollar of total assets	$3. 22	$2. 42
Total inventory at end of year	$19, 728	$15, 110
Purchasing volume per dollar of ending inventory	$15. 80	$14. 80
Purchasing volume	$312, 508	$223, 734

Table 36.—Effects of purchasing volume on operating results of 40 member associations for the fiscal year ended June 30, 1952

Items	Volume groups—averages of 10 co-ops in each			
	Highest 25 percent	Second 25 percent	Third 25 percent	Lowest 25 percent
Average purchasing volume	$436, 438	$319, 973	$236, 368	$150, 722
Range in purchasing volume	618, 537 to 373, 644	347, 642 to 289, 071	285, 034 to 211, 263	207, 900 to 63, 457
Gross margin on purchasing	37, 586	24, 699	22, 896	12, 888
Other revenue	1, 256	961	1, 108	542
Total gross margin and other revenue	38, 842	25, 660	24, 004	13, 430
Expenses (including commission)	25, 762	18, 828	16, 507	10, 654
Net margin on purchasing	13, 080	6, 832	7, 497	2, 776
Gross margin on marketing [1]	—796	0	607	0
Net margin on services [2]	152	210	532	20
Net margin on local operations	12, 436	7, 042	8, 636	2, 796
Dividends and wholesale refunds	12, 262	8, 787	8, 129	5, 470
Total net margins	24, 698	15, 829	16, 765	8, 266
	Percent of purchasing volume			
Gross margin on purchasing	8. 61	7. 72	9. 69	8. 55
Other revenue	. 29	. 30	. 47	. 36
Total gross margin and other revenue	8. 90	8. 02	10. 16	8. 91
Expenses (including commissions)	5. 90	5. 88	6. 99	7. 07
Net margin on purchasing	3. 00	2. 14	3. 17	1. 84
Gross margin on marketing [1]	—. 18	0	. 26	0
Net margin on services [2]	. 03	. 06	. 22	. 01
Net margin on local operations	2. 85	2. 20	3. 65	1. 85
Dividends and wholesale refunds	2. 81	2. 75	3. 44	3. 63
Total net margins	5. 66	4. 95	7. 09	5. 48

[1] Includes net margin for one association.
[2] Includes small amount of gross margin for several associations.

assets in the commission co-ops, compared with 18 percent in the salaried group.

3. The commission co-ops had 15 days of total supply business and 37 days of credit sales tied up in accounts receivables at the end of the year compared with 12 days and 44 days, respectively, for the salaried co-ops. Further analysis showed that the commission co-ops had 48 percent of their receivables classified as being under 30 days in age and 84 percent under 90 days,

compared with 40 percent and 69 percent respectively for the salaried associations.

4. Salaried cooperatives had considerably more current assets and a little more cash for each dollar of current liabilities; a higher proportion of their assets owned by members; but less supply volume for each dollar of fixed assets and each dollar of net current assets.

Volume

Operating statements of the 40 associations were arrayed from high to low according to their supply volumes, divided into four groups, and averaged. (See table 36.) Supply sales of the highest volume group averaged $436,438 compared with $150,722 for the lowest volume group. The range among the 40 co-ops was from $63,457 to $618,537, with one-fourth exceeding $370,000.

The most important effects of volume on operations were:

1. No relationship existed between volume and gross margins.
2. Expenses of the 20 largest volume co-ops averaged about 1.1 cents for each dollar of supply sales less than the expenses of the 20 lowest volume co-ops. There was no difference, however, in the averages of the two highest volume groups of 10 co-ops each, nor in the two lowest volume groups.
3. No relationship existed between volume and local net margin for each dollar of supplies in the three largest volume groups, but percentage net margins were somewhat less in the lowest volume group.
4. Dividends and wholesale refunds received by the 20 lowest volume co-ops averaged about 0.8 cent per dollar higher than those of the 20 largest volume associations.

Table 37.—Effects of purchasing volume on selected credit comparisons among 40 member cooperatives for fiscal year ended June 30, 1952

Item	Volume groups—averages of 10 co-ops in each			
	Highest 25 percent	Second 25 percent	Third 25 percent	Lowest 25 percent
Purchasing volume	$436, 438	$319, 973	$236, 368	$150, 722
Credit sales (exclusive of those to Government agencies)	$194, 657	$148, 665	$51, 262	$35, 023
Percent of purchasing volume	44. 6	46. 5	21. 7	32. 2
Open (unsecured) accounts receivable	$21, 106	$16, 995	$8, 661	$5, 720
Number of days' credit sales in accounts receivable at end of year	33. 6	35. 4	52. 4	50. 6
Percent of credit sales in accounts receivable at end of year	10. 8	11. 4	16. 9	16. 3
Number of days' total sales in accounts receivable at end of year	15. 0	16. 5	11. 4	11. 8
Percent of total sales in accounts receivable at end of year	4. 8	5. 3	3. 7	3. 8

5. Little relationship existed between volume and total net margins. The third ranking group of cooperatives had the highest net margins—7.1 percent compared with 5 to 5.6 percent for the other three groups. The highest volume associations had about three times more total net margins than the lowest volume group because their sales were that much greater.

In comparing credit, table 37 shows that the two highest volume groups had a somewhat larger proportion of credit business, but they averaged only 34 days' of credit sales in accounts receivable at the end of the year compared with 51 days' for the two lowest volume groups. However, on the basis of total supplies sold they had about 16 days' of sales in accounts receivable at the end of the year, compared with 12 for the two lowest volume groups.

Expenses

Table 38 shows averages of the operating statements of 4 groups of associations, each containing 10, when they were arranged from high to low according to expenses for each dollar of purchasing volume. Expenses for the lowest expense group averaged 4.19 percent compared with 8.23 for the highest group. The most important points shown by the analysis were:

1. The highest expense associations had the highest gross margins and other revenue per $1 of supply volume. Gross margin plus other revenue averaged 8.10 percent and expenses 4.19 percent in the lowest group compared with 9.89 percent and 8.23 percent, respectively, in the highest expense group.

2. Net margins on supply purchases in the lowest expense group averaged 3.91 percent compared with 1.66 percent for the highest expense group. However, the percentage net margins for the two middle groups averaged about the same because the second group had higher gross margins and the third group had larger supply volumes.

3. Dividends and wholesale refunds averaged about the same for all groups except in the highest expense group where they were approximately 1 cent a dollar higher.

4. Total net margins averaged about the same for all groups except the lowest expense one where they were nearly 1 cent a dollar more than the other three.

Handling or operating expenses of a purchasing cooperative are extremely important because they, along with the cost of the goods, determine the final cost of the farmer's supplies, after taking patronage refunds into account. Patrons of cooperatives with high net margins and refunds may not always be getting their supplies at the lowest cost if the expenses and gross margins of the cooperative are high.

The 10 lowest expense cooperatives had expenses averaging 4.19 percent, which was only about half that of the 10 highest expense associations whose average was 8.23 percent, yet the supply volume of each group averaged almost the same. An analysis of the handling costs of these two groups showed that the principal items accounting for the increase in the high expense group were salaries and wages, ad-

Table 38.—Effects of expense for each dollar of purchasing volume on operating results of 40 member associations for the fiscal year ended June 30, 1952

Items	Expense groups—average of 10 co-ops in each			
	Highest 25 percent	Second 25 percent	Third 25 percent	Lowest 25 percent
Average percent expense	8.23	6.85	5.89	4.19
Range in percentage expense	9.55 to 7.74	7.67 to 6.36	6.33 to 5.49	5.43 to 3.10
Purchasing volume	$270,811	$263,717	$345,451	$263,523
Gross margin on purchasing	$25,524	$23,748	$27,989	$20,807
Other revenue	1,263	1,140	916	548
Total gross margin and other revenue	26,787	24,888	28,905	21,355
Expenses (including commissions)	22,299	18,055	20,342	11,055
Net margins on purchasing	4,488	6,833	8,563	10,300
Gross margin on marketing [1]	603	0	577	(−1,369)
Net margin on services [2]	(−11)	503	(−88)	511
Net margin on local operations	5,080	7,336	9,052	9,442
Dividends and wholesale refunds	10,159	7,392	9,466	7,632
Total net margins	15,239	14,728	18,518	17,074
	Percent of purchasing volume			
Gross margin on purchasing	9.42	9.01	8.10	7.89
Other revenue	.47	.43	.27	.21
Total gross margin and other revenue	9.89	9.44	8.37	8.10
Expenses (including commissions)	8.23	6.85	5.89	4.19
Net margin on purchasing	1.66	2.59	2.48	3.91
Gross margin on marketing [1]	.22	0	.17	(−.52)
Net margin on services [2]	0	.19	(−.03)	.19
Net margin on local operations	1.88	2.78	2.62	3.58
Dividends and wholesale refunds	3.75	2.80	2.74	2.90
Total net margins	5.63	5.58	5.36	6.48

[1] Includes net margin for 1 association.
[2] Includes small amount of gross margin for several associations.

vertising, insurance and bonds, payroll taxes, rent, and interest. (See table 39.)

Some of the difference between the two groups was probably due to the following: (1) Seven of the ten high expense co-ops employed managers on a commission basis compared with 4 in the 10 low expense group, and the commission rates of 4 in the high group were from 20 to 25 percent; (2) four branches were operated by the high expense group while the other had none; and (3) more services such as seed cleaning, lime spreading, and

Table 39.—Itemized expenses of 10 member cooperatives with lowest expense per dollar of supplies compared with 10 co-ops having highest expenses during fiscal year ended June 30, 1952

Expense item	Low expense group Cents per dollar of supplies	High expense group Cents per dollar of supplies
Manager's salary and commission	1. 24	1. 73
Other salaries and bonuses	. 90	2. 25
Other wages	. 41	1. 08
Payroll taxes and insurance	. 04	. 15
Total employee cost	2. 59	5. 21
Advertising	. 04	. 20
Bad accounts	. 03	. 10
Insurance and bonds	. 21	. 41
Office supplies	. 08	. 16
Rent	. 09	. 35
Taxes	. 08	. 13
Telephone and telegraph	. 15	. 23
Interest	. 16	. 45
Subtotal	. 84	2. 03
Depreciation	. 36	. 37
All other expenses	. 40	. 62
Total	4. 19	8. 23

farm delivery of supplies were provided by the high expense associations.

Purchasing Supplies Through M. F. C.

Table 40 shows a 3-year (1950–52) average of the operating results of four groups of member associations, arranged from high to low according to their proportion of purchases from M. F. C., with feed and veterinary supplies excluded. The percentage bought from M. F. C. the last 3 years averaged 81 percent in the highest group of 10 co-ops compared with 55 percent for the lowest group. In most of these comparisons where averages showed important facts, usually two or three cooperatives in each group of 10 were considerably below or above the averages.

The more important points from this analysis were:

1. The group with the highest proportion of purchases from M. F. C. had total net margins of 7.2 percent, or 2.4 cents a dollar more than the lowest group. This was due to 1.5 cents a dollar more local net margins and to 0.9 of a cent more dividends and refunds from M. F. C.

2. Higher local net margins were due mainly to higher gross margins on purchasing volume and other revenue. The group buying most through M. F. C. had an average of 10.19 percent gross margin on supplies, or about 2.5 cents a dollar more than the lowest group. Ex-

penses were highest for the group with most purchases through M. F. C. but they averaged about the same for the other three groups.

3. Little relation existed between volume and the proportion purchased from M. F. C.

Data for 1951–52 alone showed similar results although several associations that had a high proportion of purchases from M. F. C. during the 1950–52 period were in a lower percentage group in 1951–52.

Co-ops With Largest and Smallest Net Margins

In this analysis operating statements of the 40 associations were arrayed from high to low according to their total net margin for each

Table 40.—Effects of purchasing supplies through Mississippi Federated Cooperatives (A. A. L.) on operating results of 38 member associations during fiscal years ended June 30, 1950–52 [1]

Items	Purchases from M. F. C.—averages of 9 or 10 co-ops in each group [2]			
	Highest 25 percent	Second 25 percent	Third 25 percent	Lowest 25 percent
Range in percent purchased from M. F. C.	88.1 to 74.7	73.5 to 69.0	68.6 to 61.1	59.4 to 43.6
Average percent purchased	81.0	71.0	64.9	55.0
Purchasing volume [1]	$221,863	$263,832	$247,078	$280,606
Gross margin on purchasing [3]	22,316	22,684	21,813	21,082
Other revenue and service margins	3,836	2,559	2,638	4,280
Total gross margins and other revenue	26,152	25,243	24,451	25,362
Expenses (including commissions)	17,645	17,202	17,146	18,814
Net margins on local operations	8,507	8,041	7,305	6,548
Dividends and wholesale refunds	7,469	7,220	6,663	6,879
Total net margins	15,976	15,261	13,968	13,427
	Percent of purchasing volume			
Gross margin on purchasing [3]	10.19	8.82	8.86	7.69
Other revenue and service margins	1.59	0.75	1.04	1.35
Total gross margin and other revenue	11.78	9.57	9.90	9.04
Expenses (including commissions)	7.95	6.52	6.94	6.71
Net margins on local operations	3.83	3.05	2.96	2.33
Dividends and wholesale refunds	3.37	2.74	2.69	2.45
Total net margins	7.20	5.79	5.65	4.78

[1] Includes all supplies except feed and veterinary supplies.
[2] Averages of 10 cooperatives in both the highest and second 25 percent groups, and averages of 9 co-ops in both the third and fourth groups.
[3] 2-year average only for 1949–50 and 1951–52.

dollar of purchasing volume for 1951–52, and then placed into four groups and averaged. Net margins for the four groups, from high to low, averaged 8.65, 6.53, 4.79 and 3.20 percent. (See table 41.) The range was from 0.25 to 10.71 percent, the median was 5.53, and one-fourth of the co-ops exceeded 7.15 percent.

The most important factor responsible for the differences in net margins appeared to be the gross margin realized on local purchasing operations. The more important characteristics of the high net mar-

Table 41.—Comparison of operating results of 40 member associations grouped according to net margins per dollar of purchasing volume for fiscal year ended June 30, 1952

Items	Net margin groups—average of 10 co-ops in each			
	Highest 25 percent	Second 25 percent	Third 25 percent	Lowest 25 percent
Range in percentage net margins	10.71 to 7.26	7.05 to 5.59	5.48 to 4.12	4.11 to 0.25
Average percent net margin for each dollar of purchasing volume	8.65	6.53	4.79	3.20
Purchasing volume	$257,182	$282,253	$348,001	$256,066
Gross margin on purchasing	25,030	26,427	28,389	18,223
Other revenue	1,195	940	1,098	633
Total gross margin and other revenue	26,225	27,367	29,487	18,856
Expenses (including commissions)	15,428	18,558	20,870	16,895
Net margin on purchasing	10,797	8,809	8,617	1,961
Gross margin on marketing [1]	607	577	(−1,372)	0
Net margin on services [2]	627	287	774	(−774)
Net margins on local operations	12,031	9,673	8,019	1,187
Dividends and wholesale refunds	10,222	8,749	8,661	7,016
Total net margins	22,253	18,422	16,680	8,203
	Percent of purchasing volume			
Gross margin on purchasing	9.73	9.36	8.16	7.11
Other revenue	.47	.33	.31	.25
Total gross margin and other revenue	10.20	9.69	8.47	7.36
Expenses (including commissions)	6.00	6.57	6.00	6.59
Net margin on purchasing	4.20	3.12	2.47	.77
Gross margin on marketing [1]	.24	.21	(−.39)	0
Net margin on services [2]	.24	.10	.22	(−.31)
Net margin on local operations	4.68	3.43	2.30	.46
Dividends and wholesale refunds	3.97	3.10	2.49	2.74
Total net margins	8.65	6.53	4.79	3.20

[1] Includes net margin for 1 association.
[2] Includes small amount of gross margin for several associations.

Table 42.—Relationship of net margin for each dollar of purchasing volume to selected credit data and financial comparisons in 40 member cooperatives for the fiscal year ended June 30, 1952

Items	Net margin groups—average of 10 co-ops in each			
	Highest 25 percent	Second 25 percent	Third 25 percent	Lowest 25 percent
Average net margin for each dollar of purchasing volume	8. 56	6. 53	4. 79	3. 20
Total purchasing volume	$257, 182	$282, 253	$348, 001	$256, 066
Percent credit sales of purchasing volume	15. 9	34. 5	51. 6	43. 7
Credit sales (exclusive of those to Government agencies)	$40, 868	$97, 405	$179, 476	$111, 857
Total net accounts and notes receivable	$4, 966	$16, 079	$20, 336	$12, 357
Percent of current assets	9. 7	34. 7	39. 6	34. 6
Percent of purchasing volume	1. 9	5. 7	6. 1	4. 8
Open accounts receivable (gross)	$5, 218	$11, 458	$21, 851	$13, 957
Number of days' total sales in open (unsecured) accounts receivable	6. 3	12. 6	19. 5	16. 9
Number of days' credit sales in open accounts receivable	39. 6	36. 5	37. 7	38. 7
Percent of total sales in accounts receivable at end of year	2. 0	4. 1	6. 3	5. 5
Percent of credit sales in accounts receivable at end of year	12. 8	11. 8	12. 2	12. 5
Total current assets	$50, 947	$46, 328	$53, 813	$35, 760
Total current liabilities	$5, 657	$9, 585	$20, 793	$23, 557
Current assets per dollar of current liabilities	$9. 01	$4. 83	$2. 59	$1. 52
Net current assets or working capital	$45, 290	$36, 743	$32, 020	$12, 203
Purchasing volume per dollar of net current assets	$5. 68	$7. 68	$10. 87	$20. 98
Total cash on hand and in bank	$21, 568	$23, 038	$31, 872	$20, 410
Percent cash of current assets	43. 1	15. 9	8. 7	12. 7
Total cost value of fixed assets	$21, 568	$23, 038	$31, 872	$20, 410
Purchasing volume per dollar of fixed assets	$11. 92	$12. 25	$10. 92	$12. 54
Total members' equity	$110, 098	$82, 777	$91, 833	$51, 637
Total assets	$116, 453	$95, 560	$118, 680	$79, 232
Percent members' equity of total assets	94. 5	86. 6	77. 4	65. 2
Purchasing volume per dollar of total assets	$2. 21	$2. 95	$2. 93	$3. 23
Total inventory at end of year	$12, 630	$17, 929	$26, 084	$16, 728
Purchasing volume per dollar of ending inventory	$20. 36	$15. 74	$13. 34	$15. 31

gin cooperatives as compared with the low net margin ones were:

1. No relationship existed between volume of supplies handled and total net margins for each dollar of business.

2. Gross margins of the 10 cooperatives with the highest net margins averaged 9.73 percent, 2.62 cents a dollar above the 7.11 percent average for the 10 with the lowest net margins.

3. No relationship existed between total net margins and total expenses on a dollar basis.

4. The two highest net margin groups had better gross margins on their marketing and service activities than the two lowest net margin groups.

5. Dividends and patronage refunds for each dollar of local supply business were greater in the two groups with the highest percentage net margins.

The 10 highest net margin associations were in a much better credit and receivables position than the 30 co-ops in the other 3 groups, as indicated by the following information from table 42:

1. Credit sales of the high net margin group amounted to only 16 percent of total supply volume compared with 35, 52, and 44 percent for the other three respective net margin groups.

2. The high net margin co-ops had only 6 days' of total sales in receivables at the end of the year compared with 13, 20, and 17 days' sales for the other groups. However, all groups had about the same number of days' credit sales in accounts receivable at the end of the year.

3. Net receivables of high net margin co-ops averaged only $4,966 compared with $16,079, $20,336, and $12,357 for the other three groups. These receivables represented only 10 percent of current assets in the high net margin group compared with 35, 40, and 35 percent in the other three.

They had more cash and total current assets for each dollar of current liabilities, larger supply volume in relation to ending inventory, and a greater proportion of total assets owned by members. Supply volume per dollar of net current assets and total assets, however, were less as net margin percentages increased.

Suggested Standards

Table 43 suggests several standards of performance based on the various analyses of the 1951–52 operating statements of these 40 associations. Included in each operation is the point exceeded by the upper 25 percent or 10 associations.

Also, the table shows the points exceeded by the upper 12½ percent or 5 associations. In other words the medians, or midpoints, of the upper half and of the upper one-fourth of the associations, when arrayed from high to low or from best to poorest, are included for comparison.

Some of the suggested standards are near one basis and some are nearer the other. This is due in part to the fact that no association would be expected to rate in the upper one-fourth or one-eighth of the group in every measure included in the table. The most successful cooperatives probably will be above some of the suggested standards and below others. For other associations these standards will be more in the nature of goals than standards. Also, they will need to be revised as changes occur in volume, facilities and types of supplies handled. Further research perhaps should be directed to developing a set of goals and a set of

danger points for the various operations or measures.

On the basis of these standards, a local association should have an annual supply volume of $400,000 with a gross margin of 10 percent, other receipts of 0.5 percent, expenses of 5.5 percent, and a local net margin of 5 percent. Net margins from marketing and services should add another 0.2 percent. When dividends and patronage re-

Table 43.—Suggested standards of operating performance for 40 member cooperatives which handled fertilizer, seed, feed, and miscellaneous supplies in 1953

Operations or measures	Suggested standards	Performance exceeded by—	
		10 of the 40 co-ops [1]	5 of the 40 co-ops [1]
Volume of supplies purchased by patrons	$400,000	$360,000	$397,000
	Percent of supply volume		
Gross margin on fertilizer	9.5	9.2	9.9
Gross margin on seed	13.0	12.3	14.0
Gross margin on feed	9.0	8.2	9.1
Gross margin on miscellaneous supplies	12.0	11.1	13.0
Total gross margins	10.0	9.7	10.5
Other receipts	.5	.5	.7
Total gross margins and receipts	10.5	10.2	11.2
Employee costs [2]	3.5	3.5	2.5
Other expenses	2.0	1.8	1.5
Total expenses	5.5	[3] 5.5	[3] 4.8
Local net margins—purchasing department	5.0	3.8	4.6
Net margins—service department	.1	.2	.4
Net margins—marketing department	.1	-------	--------
Total local net margins	5.2	3.8	4.6
Dividends on capital stock and patronage refunds from M. F. C. and others	3.5	4.0	4.4
Total net margins	8.7	7.2	8.5
Supply volume per dollar of fixed assets (at cost value)	$16	$19	$27
Supply volume per dollar of net current assets	$15	$15	$18
Supply volume per dollar of total assets	$4	$3.75	$4
Turnover of miscellaneous supply inventories	4	-------	--------
Percentage cash business	[4] 75	90	99
Days' of credit sales in accounts receivable at end of year	[5] 15	26	11
Percent of total supplies purchased from M. F. C.	[4] 85	76	81

[1] Percentages do not add to totals because each represents the performance exceeded by 10 co-ops in first column and by 5 in the second.
[2] Includes portion of net margins paid to managers as commissions.
[3] Expenses were arrayed from low to high for this comparison.
[4] Or more.
[5] Or less.

funds from M. F. C. of 3.5 percent are included, total net margins should be 8.7 percent of purchasing volume.

A supply business of $16 for each dollar of fixed assets, at cost value; $15 per dollar of net current assets; and $4 for each dollar of total assets is suggested. Cash business should exceed 75 percent of total sales, and if credit is granted, not more than 15 days of credit sales should be outstanding at the end of the year. Purchases from their wholesale cooperative—M. F. C.—should exceed 85 percent of their total purchases.

Services Provided for Farmers

LOCAL purchasing associations in Mississippi are providing more services for farmers each year as the need arises. These services relate primarily to the supplies handled, but several were established to help farmers do other jobs on a cooperative basis more economically than they could do them individually. When a considerable volume of service was conducted, receipts and direct expenditures were kept separately and operating statements were prepared for the service departments.

Types and Operating Results

Thirty-seven associations reported $210,535 of gross receipts from some type of services performed for members. (See table 46, p. 120.) Direct expenses charged against certain of these services by the associations totaled $201,393, thus leaving a margin (gross in some cases and net in others) of $9,142, or $247 an association.

Farm Supply Delivery Service

Twenty-five associations reported delivering fertilizer or feed to farmers by truck in 1951–52. Gross receipts from charges to patrons for 20 associations totaled $82,832, or $4,142 an association, and the direct expense of 21 associations was $96,221 or $4,582 a co-op, leaving a small net loss on the oper-

Spreading fertilizer and lime on farms is an important service of several local cooperatives.

Table 44.—Rates for trucking fertilizer to farms by 25 member cooperatives, 1952–53

Rate for each ton and size of delivery	Mileage limitations	Number of associations
$1	None	6
$1.25	Over 10 miles	2
$1 if over 5 tons	Up to 15 miles	1
$1.50 if under 5 tons	Over 15 miles	
$1.25 if under 5 tons	Varies	1
$1	Under 10 miles	
$1.50		3
$1.50	Under 5 miles	1
$1.70	Over 5 miles	
$1.50	None	1
$1	None	
$1.50 to $2 under 10 tons	Up to 15 miles	1
No charge on 10 tons	None	
$1.50 on full load of low margin items		1
None on high margin items		
$2	None	3
$2	Up to 20 miles	5

ation. Some of these receipts and expenses, however, applied to trucking performed for the cooperatives in hauling materials from plants to their warehouses, and some apparently applied to lime and fertilizer spreading.

Rates charged for trucking fertilizer to farms varied greatly as indicated by table 44.

Few reported delivering feed to farms but those which did charged various rates ranging from $1 to $2 a ton.

Lime and Fertilizer Spreading

Six associations reported 18 trucks equipped to spread lime and fertilizer in bulk on farms. Two associations each charged $2.50 a ton for spreading lime and the other four charged $2, $2.25, $2.28, and $2.40 a ton, respectively. Two of these organizations charged $4 a ton for spreading fertilizer and basic slag and others reported a total charge of between $4 and $5 including the lime.

In 1951–52 five of these associations kept separate operating statements on their lime departments. They showed total spreading receipts of $41,509, or $8,302 an association, and expenses of $38,915 or $7,783 an association, which left a net gain of $519 an association.

Several organizations reported that they did not need to own lime spreading equipment because private individuals in the community performed this service at reasonable rates. Some associations contract with individuals to spread fertilizer for their patrons.

Fertilizer Distributor Rental

Fourteen associations reported renting 26 fertilizer distributors to patrons in 1951–52. They took in

Renting fertilizer distributors to farmers is another service of local cooperatives.

$11,553 of receipts, or $825 an association.

The number charging various rates are indicated by the tabulation on this page.

Rate per day:	Associations
$3.00	5
3.75	1
4.00	5
4.50	1
5.00	1
No report	1
Total	14

Seed Cleaning

Eight associations had standard seed-cleaning equipment and two others had a small amount of equipment. Nine reported gross receipts from cleaning seed of $21,298, or $2,366 an association. Four of these with total receipts of $20,009 showed direct seed-cleaning expenses of $14,927 leaving total net margins of $5,082.

Reports from two associations showed the following cleaning charges a hundredweight: Crimson clover—60 cents gross and $1 net weight; oats—35 cents by one and 40 cents by the other; oats and vetch--60 cents; fescue and rye grass—$1.50 and $2; Ladino and white clover—$3. One other association rented its cleaner at $2 an hour.

Cold Storage and Food Locker Service

Five associations had cold storage plants whose gross receipts totaled $21,568 and four of these reported total direct expenses of $21,958. One association reported charging 4½ cents a pound and another 5 cents a pound for cutting, curing, and storing meat.

Two associations had locker plants which reported gross receipts of $16,806 and direct expenses of $19,260, leaving an operating loss of $2,454, or $1,227 an association. One plant reported charges of 3 cents a pound to both locker and home freezer patrons for cutting and wrapping services.

Other Services

Three associations reported feed mixing and grinding services. Two each had receipts ranging between $4,000 and $5,000, but only one charged direct expenses to this service.

Two associations reported treating posts with a wood preservative. Their receipts totaled $1,378 and direct expenses were $906, leaving a net margin of $472, or $286 for each association. One reported it charged 15 cents a post if under 3 inches in diameter and various rates for those 3 inches or more in diameter. The other charged 15 to 25 cents a post, depending upon size.

Two associations performed cattle spraying services. One charged 15 cents a head and the other $4 a day.

One association performed an ensilage cutting service. Another had a corn shelling service at 10 cents a bushel. A third association reported financing feed and chicks for broiler producers. One rented out its grain drill at $10 a day and it also owned a bush saw which may be rented out in the future.

Cold storage and meat curing are provided by five local co-ops. Two also have frozen food lockers.

Additional Possibilities

Several associations were considering additional services for farmer patrons. Five believed that feed grinding and mixing would be a worth-while service. Four were considering seed cleaning and treating equipment, and three expressed a desire to obtain a truck for delivering supplies to members. One each was considering lime spreading, fertilizer spreading, scarifying seed, delinting and treating of cotton seed, milk receiving, and chilling and deep-freezing fresh meat and produce for home freezer patrons.

Farm Products Marketed

ALTHOUGH farmers organized these local associations to purchase farm supplies and equipment, they are interested in marketing services wherever such organizations can help improve their returns or provide needed marketing outlets or services. In 1936, 8 of 24 associations on which information was obtained by the Cooperative Research and Service Division marketed various farm products. Other associations have marketed products from time to time whenever there was a sufficient volume and demand for the service.

Types and Operating Results

Cotton

For M. F. C., 36 associations in 1951–52 acted as local receivers of cotton which farmers wished to put under loan or sell. They received 29,662 bales from approximately 9,000 growers, bringing these co-ops commissions totaling $11,492, an average of $319 an association. Bales received from 1946 through 1952 are shown in table 45. One association purchased cotton outright from growers and then reim-

bursed them for any savings made in marketing it. Its cotton volume in 1951–52 was over $500,000.

County cooperatives receive the cotton on the basis of grades and staples determined by the U. S. Department of Agriculture's classing office for that area and make loans based on values established by the Commodity Credit Corporation. As soon as the local association receives the bonded warehouse receipts and Government classification card (Smith-Doxey green card) for cotton from a farmer member, it draws a draft on M. F. C. for the amount of the loan less deductions for handling. At the same time the producer signs a warranty and agreement note for the amount of the loan. At the end of each day local associations send to M. F. C. all bonded warehouse receipts, Government classification cards, and copies of invoices covering cotton received for loan or sale purposes during the day.

In case a farmer's cotton has not been classed by a Government office at the time he applies to the local association for a loan, the local sends a sealed bonded warehouse sample from each bale of the cotton to the central office of M. F. C. It forwards these samples to the Government classing office. The full amount of the loan is not made until the grade and staple of the cotton has been determined.

Local cooperatives thus receive cotton and execute marketing documents for signature by the producers; they deliver sales proceeds and make requested cash advances to farmers while the cotton is being marketed; and they disburse the equities accumulated by the county cooperatives and M. F. C. from the marketing charges. For these services, county cooperatives deduct a small handling charge from funds due the producer. During the fiscal years ending in 1941 through 1943 this charge was 25 cents a bale; for the years 1944 through 1946 it was 35 cents a bale; and since that time it has been 50 cents a bale.

In case cotton in the Government loan pool is later sold by M. F. C. upon instruction from the farmer, the local association receives 25 cents a bale from M. F. C. for obtaining a release from the farmer to withdraw the cotton from the loan and sell it.

Producers store their cotton in available bonded warehouses in their areas because none of the member cooperatives nor M. F. C. have warehouses for this purpose.

Poultry and Eggs

The Forrest County Cooperative, Hattiesburg, has made considerable progress in developing a poultry production and marketing service for producers in its territory. It has three programs:

1. The hatching program included eight men in 1952 who produced eggs under the poultry improvement association laws and used the feed of the cooperative. They receive a flat price each year for their eggs hatched by the cooperative. Its hatchery with a capacity of 60,000 eggs sold approximately 400,000 baby chicks in 1952 and 750,000 in 1953.

2. The commercial egg program included 52 men who had a total of 40,000 pullets. They produced

about 400 cases of eggs a week in the fall of 1952. The cooperative picks up the eggs from the farmer, candles and grades them, and pays him by grade.

3. The broiler program had eight men in it in 1952. The cooperative supplied the feed and baby chicks. In 1953 it marketed 400,000 broilers for farmers. The co-op required about $60,000 to finance this program and it assessed a carrying charge of 2 cents a baby chick and 25 cents a bag above the regular cash price to producers.

Growers had no written contracts in any of these programs. Sales of poultry and eggs totaled $133,298 in 1951–52.

Pecans; Other Products

Several associations acted as pecan receiving or assembling agents for the Gold Kist Pecan Cooperative at Waycross, Ga.—an affiliate of the Cotton Producers Association, Atlanta, Ga.—and received 1 cent a pound commission for this service. Jones County, for exexample, handled about 100,000 pounds and Clarke County about 45,000 pounds. One manager reported that growers received from 2 to 4 cents a pound above prevailing local prices, other buyers offered, and another manager indicated this was a worthwhile service because it brought a number of new patrons to the cooperative.

One association reported it marketed about $11,000 worth of field corn; one sold $1,923 worth of turkeys; another reported grain sales of $41,644; and another sold about $5,000 worth of baby chicks. These operations realized little gross margin except for hatchery and eggs. Four other associations marketed a small amount of seed and one also handled sweet peppers.

Five associations thus reported sales of farm products totaling $722,773 in 1951–52, with a gross margin of $16,692.

Several associations have marketed small amounts of other products from time to time, but the volume was insufficient or the quality too low for a successful service. The Leake County Cooperative (A. A. L.), Carthage, at one time marketed eggs; Oktibbeha County Cooperative (A. A. L.), Starkville, handled wool and lambs; Winston County Cooperative (A. A. L.), Louisville, marketed sirup and peas; Rankin County Cooperative (A. A. L.), Brandon, handled

Grain elevator and feed mill represent two recent services added by Madison County Cooperative (A. A. L.), Canton.

Irish potatoes and eggs but the manager stated that the cooperative was expected to market eggs which couldn't be sold to the stores in nearby towns; Hinds County Cooperative (A. A. L.), Jackson, at one time marketed cabbage in carlots to brokers in cities and sweet corn was sold in small lots locally; Pike County Cooperative (A. A. L.), McComb, handled sweet corn and sweetpotatoes 2 years ago. Forrest County Cooperative (A. A. L.), Hattiesburg, and Panola County Cooperative (A. A. L.) Batesville, have marketed sweet corn; Grenada County Cooperative (A. A. L.), Grenada marketed common lespedeza and fresh vegetables for several years. Calhoun County Cooperative (A. A. L.), Calhoun City, also marketed Lespedeza.

Additional Possibilities

About one-third of the managers did not have any specific suggestions for obtaining a larger volume of cotton, but 15 indicated that more educational and informational work with growers would help. The principal methods suggested were personal contact, community meetings, and advertising. They indicated that too many growers did not realize or understand the marketing service available through the local associations and M. F. C., and some did not seem to realize the advantages of placing their cotton under Government loan in most years.

Some of the specific suggestions by managers for improving volume were:

1. Know all cotton growers in the county.
2. Mail cards to growers showing values for various grades and classes of cotton.
3. Put a sign in front of the cooperative telling of the cotton services available.
4. Advertise in local papers as well as in the M. F. C. Co-op News and the Farm Bureau paper.
5. Furnish an itemized statement to each grower showing when the cotton was sold, the prices received, and all deductions.
6. Have a local cotton classer at each cooperative.
7. Reduce cost of putting cotton into loan.
8. Help farmers market their cotton seed.

Factors retarding cooperative marketing of miscellaneous farm products in the State include:

1. Volume has not been large enough or dependable enough for M. F. C. to develop a regional or terminal marketing service with established outlets.
2. Quality has varied greatly because of small production in scattered areas, and as a result the products have encountered difficulty in measuring up to the grades or standards desired by the wholesale trade.
3. Merchants in some areas pay higher prices for farmers' products taken in trade for merchandise than can be obtained through the coops.
4. Some firms grant considerable credit on farm supplies and the producer then feels obligated to market his products through them if they operate a marketing service.

Several managers, however, believed that there were opportunities for county cooperatives to render a marketing service. The product most frequently mentioned was locally produced seeds in Lee, Calhoun, Hinds, DeSoto and Gre-

nada Counties. Managers indicated there was a need for a cooperative marketing service for other products in areas shown in the tabulation on this page.

Local cooperatives and M. F. C. thus showed considerable interest in expanding marketing services and facilities. Because of past difficulties, however, the prevailing policy is to determine that favorable factors exist before starting a marketing project. They also believe processing facilities should be owned locally. Among the favorable factors desired are: (1) Adequate production volume; (2) sufficient need and enough farmer interest to invest at least one-half of the necessary capital for facilities; and (3) willingness of producers to market their products on a graded and cooperative basis.

Before any local association undertakes a new marketing service, it usually asks representatives of M. F. C. and the Extension Service, or Department of Agricultural Economics of Mississippi State College, to study the feasibility of the proposed service and to advise and assist farmers in any way possible.

Product	*Counties*
Vegetables	Jones.
Livestock auctions	Jones, Grenada, Hinds, Attala.
Poultry and eggs	Leake, Calhoun, Attala.
Pecans, sweet corn and vegetables	George.
Corn and small grains	Clarke.
Fruit and potatoes	Pontotoc.
Sweetpotatoes	Pike.
Milk receiving plant (if proved economically sound)	Webster.

Combined Operating Results and Financial Aspects

Volume, Expenses, and Net Margins

THE farm supply volume of 40 cooperatives financed and supervised by M. F. C. has increased almost five times since June 30, 1946. Marketing volume has remained about the same but cotton received for M. F. C. has varied greatly during this period. (See table 45.) A total of $11,435,024 of supplies and $722,773 of farm

Table 45.—Volume of business handled by 40 member cooperatives during fiscal years ended June 30, 1946 through 1952

Fiscal year	Supplies purchased by patrons	Farm products marketed	Cotton received for M. F. C.
			Bales
1945–46	$2,445,250	$630,628	56,801
1946–47	4,624,063	597,027	17,496
1947–48	5,500,368	750,986	19,779
1948–49	7,003,979	647,058	88,758
1949–50	7,676,255	541,746	20,816
1950–51	10,002,998	763,766	5,068
1951–52	11,435,024	722,773	29,662

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Table 46.—Combined operating statements of 40 member cooperatives for the fiscal year ended June 30, 1952

Item	Total	Averages: Of 40 co-ops	Averages: Percent of volume	Averages: Of those listing each item	Number listing each item
PURCHASING DEPARTMENT					
Purchases by patrons:					
Fertilizer [1]	$6, 128, 068	$153, 202	53. 9	$157, 130	39
Seed	2, 517, 588	62, 940	22. 2	64, 554	39
Feed	1, 557, 421	38, 936	13. 7	50, 239	31
Miscellaneous supplies	1, 161, 194	29, 030	10. 2	29, 774	39
Total—those itemizing	11, 364, 271	--------	100. 0	284, 107	39
Total—all co-ops	11, 435, 024	285, 876	100. 0	--------	40
Gross margin:					
Fertilizer	492, 057	12, 301	8. 03	12, 617	39
Seed	272, 370	6, 809	10. 82	6, 984	39
Feed	113, 998	2, 850	7. 32	3, 677	31
Miscellaneous supplies	97, 268	2, 432	8. 38	2, 494	39
Total—those itemizing	975, 693	--------	8. 59	24, 392	39
Total—all co-ops	980, 686	24, 518	8. 58	--------	40
Other revenue:					
Commissions on cotton	11, 492	287	. 10	319	36
Miscellaneous	27, 173	679	. 23	715	38
Total	38, 665	966	. 33	1, 017	38
Total gross margins and other revenue	1, 019, 351	25, 484	8. 91	25, 484	40
Expenses:					
General	641, 244	16, 031	5. 61	16, 031	40
Managers' commissions	76, 264	1, 907	. 66	2, 724	28
Total	717, 508	17, 938	6. 27	17, 938	40
Net operating margin on supplies plus other revenue	301, 843	7, 546	2. 64	7, 546	40
MARKETING DEPARTMENT					
Products marketed for patrons	722, 773	18, 069	100. 0	144, 555	5
Gross margins on all products	16, 692	417	2. 31	3, 338	5
Expenses for one department	18, 579	464	------	18, 579	1
Remaining margins	(−1, 887)	(−47)	------	(−377)	5
Total purchasing and marketing volume	12, 157, 797	303, 945	100. 0	303, 945	40
Total net margins of purchasing and marketing departments	299, 956	7, 499	2. 47	7, 499	40

Table 46.—Combined operating statements of 40 member cooperatives for the fiscal year ended June 30, 1952—Continued

Item	Total	Averages			Number listing each item
		Of 40 co-ops	Percent of volume	Of those listing each item	
SERVICE DEPARTMENT					
Gross receipts from:					
Trucking	$82,832	$2,071	------	$4,142	20
Lime and fertilizer spreading	53,062	1,327	------	2,793	19
Cold storage and locker rentals	38,374	959	------	5,482	7
Seed cleaning	21,298	532	------	2,366	9
Miscellaneous	14,969	374	------	2,495	6
Total	210,535	5,263	1.73	5,690	37
Less expenses on certain service operations	201,393	5,034	1.66	5,443	37
Remaining margins on services	9,142	229	.07	247	37
TOTAL DEPARTMENTS					
Net margin on local operations	309,098	7,728	2.54	7,728	40
Percent of purchasing volume	----------	--------	2.70	--------	-------
Dividends and refunds received:					
Mississippi Federated Cooperatives:					
Dividends on capital stock [2]	49,143	1,229	.40	1,260	39
Patronage refunds [2]	270,547	6,763	2.23	6,942	39
Other cooperatives	26,796	670	.22	2,223	12
Total	346,486	8,662	2.85	8,662	40
Percent of purchasing volume	----------	--------	3.03	--------	-------
Total net margins	655,584	16,390	5.39	16,390	40
Percent of purchasing volume	----------	--------	5.73	--------	-------

[1] Includes basic slag and lime.
[2] 1 association had not been a member long enough to earn dividends or refunds.

products were handled in 1951–52 compared with only $328,998 of supplies and $58,842 of products by 24 associations operating on a year-round basis in 1935–36.

During 1951–52 gross margins realized by the purchasing and marketing departments, plus other revenue consisting mostly of commissions on cotton, plus gross receipts from service departments, totaled $1,246,578, or $31,164 per association. (See table 46.) Expenses of the purchasing depart-

ments (plus those of one marketing department and direct expenses for certain service departments) totaled $937,480 and averaged $23,436 an association. This left a net margin on local operations of $309,098, or $7,728 an association, equal to 2.5 percent of total volume, or 2.7 percent of purchasing volume. The range was from —2.8 to 6.8 percent and one-fourth exceeded 3.8 percent.

Dividends and patronage refunds declared to locals by M. F. C. for 1951–52 totaled $319,690, or $7,992 a cooperative, which was equivalent to 2.9 percent of total volume or 3 percent of purchasing volume. Dividends and refunds received by 12 associations from other regional cooperatives totaled $26,796.

The 40 co-ops affiliated with M. F. C. thus had total net margins from all sources of $655,584, or an average of $16,390 a cooperative. This was equal to 5.4 percent of total volume and 5.7 percent of purchasing volume. (See table 46.) The range was from 0.3 to 10.7 percent, and one-fourth exceeded 7.1 percent.

Table 47 indicates that since their organization the 40 member associations have realized approximately $1.6 million from their strictly local retail, service, and marketing operations, and that they received about $1.9 million as wholesale dividends and patronage refunds from M. F. C. and other regionals.

Associations place all net margins in the patrons' equities accounts. After paying dividends or interest on capital stock and certificates of indebtedness and bonuses to employees, these locals allocate the remainder to patrons on the basis of their patronage. Patronage refunds are paid out in future years under the revolving capital systems

Table 47.—Total and local net margins realized by 40 member cooperatives since their organization through June 30, 1952

Item	Amount
Total patrons' equities accumulated from net margins	$3,092,385
Total patrons' equities retired in cash	369,022
Total certificates of indebtedness issued from patronage refunds (Hinds County)	9,500
Total dividends on stock and interest on equities paid in cash (Madison County)[1]	16,915
Total net margins of county cooperatives	3,487,822
Less wholesale net margins received from M. F. C.:	
Dividends paid on capital stock and on equities	219,744
Patronage refunds received in cash and in capital stock	1,642,293
Less wholesale net margins received as dividends on stock and patronage refunds from Magee Co-op Gin and others	29,068
Less total wholesale net margins received	1,891,105
Total *local* net margins realized by county cooperatives	1,596,717

[1] Interest on certificates of indebtedness paid by several cooperatives was considered as an expense item rather than as a dividend on capital.

used by the associations. Since organization these cooperatives have paid back in cash to farmers $385,937, of which cash dividends and refunds paid currently accounted for $16,915 and patrons' equities retired under revolving capital plans accounted for $369,022.

In 1951–52, 16 associations retired in cash $104,284 of patrons' equities for prior years under the revolving plan. The Hinds County cooperative has a slightly different method. Each year it pays out 75 percent of its local net savings in cash to patrons who have $100 invested in certificates of indebtedness. Also, in 1952–53 one association began paying out 25 percent of its current year's net margins in cash, placing the remainder in the revolving fund.

Amounts and Sources of Capital

On June 30, 1952, the 40 associations financed and supervised by M. F. C. had total assets of $4,099,249, or an average of $102,481 an association. (See table 48.) The range was from $21,066 for Carroll County Cooperative to $200,205 for Forrest County. On June 30, 1936, the total assets of 32 affiliated local cooperatives averaged only $2,685.

At the end of 1952, current assets of local associations represented about 45 percent of total assets; net fixed assets were over 15 percent; and other assets, including investments in M. F. C., represented almost 40 percent of the total. Of the current assets, inventories accounted for approximately 40 percent, of which about half were miscellaneous supplies; cash about 20 percent; net receivables from patrons about 30 percent; and receivables from M. F. C. and Government agencies the remaining 10 percent. Sixteen associations had advanced a total of $123,177 to M. F. C. as "loan capital."

Items making up fixed assets in table 48 were discussed in an earlier section of this bulletin dealing with facilities on pages 81–82. Of the $39,850 of other assets per association, $36,790 consisted of capital stock invested in M. F. C. At the close of 1952 the 40 associations had invested a total of $968,889 in their own retailing, servicing, and marketing facilities and $1,593,986 in M. F. C. and other cooperatives for their wholesaling and manufacturing services.

Capital for financing local associations has come from loans from M. F. C. as provided under the financing and supervision agreement; credit extended by other suppliers for merchandise; loans directly from the New Orleans Bank for Cooperatives for facilities; loans from individuals or banks; grants from the State Marketing Commission; net margins allocated to patrons and retained in the business; and from the sale of capital stock and certificates of indebtedness sold to farmers and others.

Current liabilities on June 30, 1952, totaled $595,919, or $14,898 for each association. Of this amount $377,969 were accounts payable to M. F. C. owed by 23 associations, and notes payable totaling $30,653 owed by 11 associations. These notes were mostly

Table 48.—Combined and average balance sheets of 40 member cooperatives for fiscal year ended June 30, 1952

Item	Total	Average of 40 associations	Average of those with each item	Number having each item
ASSETS				
Current assets:				
Cash on hand and in bank	$385,722	$9,643	$9,643	40
Accounts receivable:				
Unsecured	583,222	14,581	15,348	38
Secured	2,953	74	738	4
Consigned merchandise	313	8	313	1
Notes receivable	24,218	605	2,018	12
Total receivables	610,706	15,268	15,659	39
Less reserve for bad debts	63,321	1,583	1,918	33
Net accounts and notes receivable	547,385	13,685	14,036	39
Other receivables:				
U. S. Government agencies	74,918	1,873	1,921	39
Mississippi Federated Co-ops	123,177	3,079	7,699	16
Miscellaneous	3,588	90	897	4
Inventories at cost:				
Fertilizers	178,250	4,456	4,456	40
Lime	2,207	55	315	7
Feed	63,441	1,586	1,983	32
Seed	148,941	3,723	3,723	40
Miscellaneous	339,623	8,491	8,491	40
Locker supplies	1,240	31	620	2
Total	733,702	18,342	18,342	40
Total current assets	1,868,492	46,712	46,712	40
Fixed assets:				
Land	60,986	1,525	3,388	18
Buildings	494,230	12,356	14,121	35
Furniture and fixtures	86,198	2,155	2,210	39
Equipment	200,930	5,023	6,929	29
Trucks	126,545	3,163	5,062	25
Total cost value	968,889	24,222	24,843	39
Less reserve for depreciation	332,118	8,303	8,516	39
Net fixed assets	636,771	15,919	16,327	39
Other assets:				
Mississippi Federated Co-op:				
Common stock	638,162	15,954	15,954	40
Preferred stock	873,440	21,836	22,396	39
Mississippi Chemical Corp. capital stock	22,490	563	900	25
Magee Co-op Gin—equities	28,919	723	4,131	7
New Orleans Bank for Co-ops stock	6,200	155	886	7
Other investments	4,450	111	636	7
Miscellaneous assets	20,325	508	635	32
Total other assets	1,593,986	39,850	39,850	40
Total assets	4,099,249	102,481	102,481	40

Table 48.—Combined and average balance sheets of 40 member cooperatives for fiscal year ended June 30, 1952—Continued

Item	Total	Average of 40 associations	Average of those with each item	Number having each item
LIABILITIES AND CAPITAL ACCOUNTS				
Current liabilities:				
Accounts payable:				
M. F. C.	$377,967	$9,449	$16,433	23
Miscellaneous	43,025	1,076	2,151	20
Notes payable—current	30,653	766	2,787	11
Credit balances in accounts receivable	2,638	66	101	26
Patrons' equities, refunds, and dividends payable	34,745	869	2,316	15
Due patrons on merchandise paid for but not delivered	8,525	213	502	17
Managers' commission—payable	58,062	1,451	2,074	28
Miscellaneous	40,304	1,008	1,008	40
Total current liabilities	595,919	14,898	14,898	40
Deferred liabilities: Notes payable (noncurrent)	139,884	3,497	13,988	10
Capital accounts:				
Capital stock	21,190	530	10,595	2
Certificates of indebtedness	169,835	4,246	9,435	18
Donations	80,035	2,001	4,446	18
Patrons' equities:				
Allocated margins and reserves	2,436,801	60,919	60,919	40
Net margins for 1951–52	655,585	16,390	16,390	40
Total capital accounts	3,363,446	84,086	84,086	40
Total liabilities and capital	4,099,249	102,481	102,481	40

the current portion of long-term loans listed under deferred liabilities.

When current liabilities were subtracted from current assets, this left an average of $31,814 of net current assets or working capital for each association.

Ten associations reported long-term or deferred liabilities totaling $139,884 on June 30, 1952. These were mostly facility loans obtained from the New Orleans Bank for Cooperatives. The present interest rate charged by this bank is 4 percent a year and a loan up to 60 percent of the appraised value of physical properties offered for security may be obtained if other requirements of the bank are met. The loans usually have maturity dates of 5 years and provisions for minimum annual or monthly payments.

Capital Accounts and Revolving Capital

Members' and patrons' capital, or net worth, in the amount of

$3,363,446 was in use by the 40 associations studied on June 30, 1952. This was an average of $84,086 an association compared with $957 a cooperative in 1936. Most of this membership capital has accumulated from net margins left in the business. (See tables 48 and 49.)

Net worth of the entire group represented over 82 percent of total assets, and in all but two associations it was more than 50 percent of total assets. Very little of the current liabilities—about $45,000—was due members and patrons for refunds and patrons equities and for advance payments on undelivered merchandise.

Patrons equities represented most of the capital accounts or net worth. Allocated margins and reserves accounted for $2,436,801 of these equities, an average of $60,901 for the 40 associations. Current net margins for 1951–52 accounted for the other $655,585, an average of $16,390 per cooperative. (See table 48.) Only two associations had capital stock outstanding in the amount of $21,190, and one of these was in the process of converting to a non-stock basis.

Eighteen co-ops had certificates of indebtedness totaling $169,835, and averaging $9,435 an association. All had been sold to members except $9,500 issued as patronage refunds. These cerificates were issued in denominations of $5, $25, $50, and $100, and a few covered the exact amount invested by each member. They do not carry maturity dates and generally bear interest at 5 percent a year. A copy of a typical certificate is included in the Appendix. The donations of $80,035 listed by 18

Table 49.—Summary of changes in the net worth accounts of 40 member cooperatives since organization through June 30, 1952

Item	Amount
Net worth at dates of organization	0
Additions:	
Net local operating margins	$1,596,718
Dividends and patronage refunds received from M. F. C. and other co-ops	1,891,105
Total net margins realized	3,487,823
Common stock sold to members	1,310
Preferred stock sold to members	19,880
Certificates of indebtedness sold to members	160,335
Donations	80,035
Total	3,749,383
Deductions:	
Cash dividends and refunds paid currently	16,915
Cash retirement of patrons equities under revolving plan	369,022
Total	385,937
Net worth on June 30, 1952	3,363,446

associations, and averaging $4,446 a cooperative, consisted mostly of grants by the Mississippi State Marketing Commission for cold storage plants and other miscellaneous facilities.

The bylaws of the 40 associations provide for the revolving of patrons' equities whenever the directors consider the associations sufficiently well financed to put such a plan into effect. By 1952, 25 associations had revolved some of their patrons' equities and they had retired in cash a total of $369,022 representing equities for prior years. This was an average of $14,761 an association. The remaining associations plan to use such a system when they become adequately financed.

During the 1951–52 year 16 associations retired $104,284 of equities in cash. Three retired equities declared and deferred 9 years ago; six retired 8-year-old equities; one retired 7-year-old equities; four retired 6-year-old equities; and two retired 5-year-old equities. Also one association retired 25 percent ($7,804) of its 1951–52 net margins in addition to all of its 8-year-old equities. Most of the associations are attempting to get on a 7-year plan in order to keep in step with the revolving system used by M. F. C., since about half of their net savings have come from M. F. C. each year.

Other deductions from patrons' equities during 1951–52 totaling $37,532 consisted mainly of inventory adjustments, bonuses to employees, and service charges for keeping patrons' equity accounts. Additions representing minor adjustments totaled $12,160 for the year.

Financial Ratios

Table 50 contains several financial and credit comparisons or ratios for the 40 local associations in 1952 and in 1950. Credit business represented almost 38 percent of total supply business in 1951–52 and there were 42 days of credit sales and 16 days of total supply volume in gross accounts receivable at the end of the year. This was a slight improvement over 1950, but more than half of the outstanding accounts receivable to patrons were over 30 days old.

Current assets increased from $2.46 per dollar of current liabilities in 1950 to $3.14 in 1952. Net receivables were about 30 percent of current assets both years. Supply volume in relation to net current assets, fixed assets, and total assets was less than in 1950. Patrons owned 82.1 percent of the assets in use on June 30, 1952—an excellent average for the group.

Future Capital Needs and Suggestions

As a group the 40 associations financed and supervised by M. F. C. were in good financial condition on June 30, 1952. Some, however, will need additional capital for acquiring new facilities. Ten associations indicated that about $85,000 would be needed for additional warehouses and elevators. Some local co-ops will need more capital for investments in Mississippi Chemical Corp. to increase the size of its plant. Others will

Table 50.—Selected financial comparisons or ratios for 40 member cooperatives for fiscal years ended June 30, 1950 and 1952

Comparisons or ratios	Averages	
	1950	1952
Credit sales as a percent of purchasing volume	(1)	37.6
(*a*) Percent of credit sales in gross accounts receivable at end of year [2]	(1)	13.6
(*b*) Number of days credit sales in gross accounts receivable at end of year [2]	(1)	42.3
(*c*) Percent of total supply sales in gross accounts receivable at end of year [2]	(1)	5.1
(*d*) Number of days total supply sales in gross accounts receivable at end of year [2]	18.3	15.9
Percent of open (unsecured) accounts receivable that were:		
(*a*) 1—30 days old	(1)	46.9
(*b*) 31—60 days old	(1)	21.3
(*c*) 61—90 days old	(1)	12.7
(*d*) Over 90 days old	(1)	19.1
Current assets per dollar of current liabilities	$2.46	$3.14
Percent that cash was of current assets	26.4	20.6
Percent that net receivables was of current assets	31.5	29.3
Supply purchasing volume per dollar of:		
(*a*) Net current assets or working capital	$10.07	$8.99
(*b*) Fixed assets (at cost value)	14.37	11.80
(*c*) Fixed assets plus investments in other cooperatives	5.05	4.51
(*d*) Total assets	2.88	2.79
Percent that patrons' equities was of total assets	80.4	82.1
Cost of supply volume per dollar of ending inventory	$16.90	$14.30

[1] Indicate data were not obtained for analysis.
[2] Exclusive of receivables from U. S. Government agencies.

need additional operating capital if their volume continues to grow and if costs of supplies continue to increase. Also, increases in feed and bulk petroleum products will require considerable funds for credit extension unless the cooperatives adhere to strict credit policies.

A few managers were concerned about the long period of their revolving capital plans and the fact that revolving patrons' equities represented practically all of their assets. Under present plans, co-ops will have to extend their revolving periods if they acquire additional facilities, or if they pay a part of each current year's patronage refunds in cash because of income tax regulations affecting individual members. One question, therefore, was whether it would be advisable to sell some type of capital stock or certificates of indebtedness to members in order to raise needed capital. Another was whether some of the future patronage refunds and/or old patrons' equities should be paid or issued in capital stock or certificates of indebtedness, and revolved at a slower rate; or not revolved with the remaining patrons' equities.

Local cooperatives should raise much of their future capital needs

by selling certificates of indebtedness to farmers. These certificates would be preferable to capital stock as they would not carry voting rights. Improved membership relations from educational work and information which would be given to farmers in selling certificates would alone be worth the effort. Experience of several local cooperatives in Mississippi and of those in other States indicate that substantial funds can be obtained in this way. Fifteen of nineteen reporting managers in Mississippi believed that their farmers would make some direct investments, and three said they had definite plans to raise a total of $22,500 this way.

A few have obtained considerable funds from farmers recently. The Hinds County cooperative, for example, raised $6,000 in 1951–52 by selling certificates of indebtedness bearing 5 percent interest annually. Teams consisting of an employee and a director were used successfully in calling on farmers. Considerable funds were obtained by getting a farmer with perhaps $45 of patrons' equities to invest another $55 in order to purchase a $100 certificate. The Forrest County cooperative raised $34,200 of operating capital from direct investments by farmers during the last three years. Most of them put in $100 to $200 for certificates of indebtedness. The interest rate was 5 percent. Good results came from 2- to 3-day capital drives conducted by three teams—each consisting of a director and an employee of the local cooperative or M. F. C. One year they raised $20,000, obtaining $3,000 in cash the first day.

Certificates of indebtedness could be issued for part of the current patronage refunds where new facilities are needed, or even for some of the old patrons' equities, but in the latter case it would seem desirable to make this optional with each member. The interest rate should be kept reasonably low and noncumulative, and maturity dates on the certificates should be avoided. If they are not revolved this would not be as equitable a method of financing as the present plan of revolving all capital equities, but this would make it possible to revolve remaining patrons' equities, made up of deferred patronage refunds, at a faster rate.

Some local associations in other States have as a general rule issued capital stock or certificates of indebtedness equal to their net fixed assets plus their investments in the wholesale cooperative. Some revolve this capital while others do not. The remaining amount of member capital is then often represented by revolving patrons' equities.

The 40 local associations in Mississippi in 1952 had an average of $56,000 in the form of net fixed assets plus investments, and their average net worth was about $84,000. If certificates of indebtedness or capital stock amounting to $56,000 were issued and 3 percent was paid on them, about $1,700 would be required annually for interest. Each association would have to decide whether the cost of

paying such interest plus that of issuing and retiring certificates would be more than offset by the advantage of adopting such a plan.

Another question raised in the course of this study was whether to pay interest or dividends on patrons' equities. This, of course, could be done on the theory that all capital is entitled to a reasonable return, and such payments could be made without affecting the present income-tax status of the cooperatives. But since these equities all originated from net margins apportioned on a patronage basis which members would not have received otherwise, it does not seem necessary to pay interest on them. If interest is paid, however, it probably should be restricted to capital equity accounts of $25 or $50 if possible, to avoid the expense of handling a large number of small checks.

Unless members have considerable objection to the present system of financing their cooperative, they should not change it, either by issuing certificates of indebtedness equal to fixed assets plus investments in M. F. C., or by paying interest or dividends on patrons' equities. Co-ops, however, could raise some of the capital needed for new or additional facilities by selling certificates of indebtedness, later to be retired under the revolving capital system.

Appendix

Appendix Table 1.—Quantity of livestock and products sold in 1949 and 1939 and livestock on farms, April 1, 1950 and 1940, Mississippi

Type	Number sold in—	
	1949	1939
Cattle and/or calves	467, 147	253, 217
Hogs and pigs sold alive	539, 424	196, 302
Chickens	7, 313, 884	3, 558, 021
Eggs (dozens)	10, 474, 852	No data
Sheep and lambs	26, 057	28, 502
Whole milk (gallons)	64, 993, 470	39, 494, 249
Cream (pounds butterfat)	916, 252	2, 391, 768
	Number on hand in—	
	1950	1940
Cattle and calves on farms	1, 569, 327	1, 139, 660
Hogs and pigs on farms	875, 444	825, 909
Sheep and lambs on farms	66, 660	60, 397
Chickens (over 4 months old)	5, 827, 851	6, 055, 468

Source: U. S. Census of Agriculture, 1940 and 1950.

Appendix Table 2.—Cash receipts from farm marketing in Mississippi for selected years

Products	1951	1950	1945	1940	1935
			Millions		
Livestock and products	$164. 7	$134. 2	$87. 2	$29. 2	$27. 6
Crops, fruits, other products	385. 2	354. 5	244. 5	75. 9	102. 5
Total	549. 9	488. 7	331. 7	105. 1	130. 1
Percent livestock was of total	30. 0	27. 5	26. 3	27. 8	21. 2

Source: Bureau of Agricultural Economics, U. S. Department of Agriculture.

Appendix Table 3.—Automobiles, trucks, and tractors on farms in Mississippi, 1950, 1945, 1940, 1935, and 1930

Year	Number of—		
	Automobiles	Trucks	Tractors
1950	76, 250	56, 249	52, 618
1945	56, 906	28, 267	21, 077
1940	55, 702	18, 565	10, 577
1935	(1)	(1)	(1)
1930	85, 563	16, 503	5, 542

Source: U. S. Census of Agriculture, 1930–50.

[1] Data not available.

Appendix Table 4.—Selected farm expenditures in Mississippi, 1949, 1944, 1939, and 1929

Item	1949	1944	1939	1929
		Millions		
Feed for livestock and poultry	$25. 9	$18. 1	$4. 9	$11. 5
Commercial fertilizer	[1] 26. 3	14. 5	8. 9	11. 5
Liming materials	(2)	1. 5	(2)	(2)
Seeds, bulbs, plants, and trees	8. 7	2. 8	[1] 1. 1	[1] . 8
Gasoline, other petroleum fuels and oils	16. 5	[1] 6. 5	3. 2	[1] 2. 9
Total	[3] 77. 4	43. 4	[4] 18. 1	26. 7

[1] Data not obtained in census, but writer made estimates on basis of data for United States expenditures for such supplies from the Bureau of Agricultural Economics.

[2] Data not available.

[3] The census also showed expenditures for tractor repairs of $7.2 million and for other farm machinery repairs of $3.8 million in 1949.

[4] The census also reported expenditures for implements and machinery of $6.5 million and for building materials of $4 million in 1939.

Source: U. S. Census of Agriculture, 1930, 1940, 1945, and 1950.

Appendix Table 5.—Selected data on cotton harvested; cattle and calves on farms; feed purchased; and seeds, bulbs, plants and trees purchased in Mississippi, 1949

Item	Upland counties (68)	Delta counties (14)	Total counties (82)
Cotton harvested in 1949:			
Total bales	564,089	932,813	1,496,902
Average per county	8,295	66,630	18,255
Farms reporting	127,668	63,064	190,732
Average farms per county	1,877	4,505	2,326
Average bales per farm	4	15	8
Cattle and calves on farms—Jan. 1, 1950:			
Number on farms	1,380,135	189,192	1,569,327
Average per county	20,296	13,514	19,138
Farms reporting	142,044	28,705	170,749
Average farms per county	2,089	2,050	2,082
Average number per farm	10	7	9
Feed purchased in 1949:			
Total amount	$22,526,928	$3,362,583	$25,889,511
Average per county	$331,278	$240,185	$315,776
Farms reporting	100,782	23,310	124,092
Average farms per county	1,482	1,665	1,513
Average purchased per farm	$224	$144	$209
Seeds, bulbs, plants, and trees purchased in 1949:			
Total amount	$4,228,345	$4,452,485	$8,680,830
Average per county	$62,182	$318,035	$105,864
Farms reporting	87,438	31,119	118,557
Average farms per county	1,286	2,223	1,446
Average purchased per farm	$48	$143	$73

Source: U. S. Census of Agriculture for Mississippi, 1950.

Appendix Table 6.—Liquid petroleum fuels and motor oil consumed on farms in Mississippi, 1947

Item	Total gallons	Gallons for each vehicle on farm
Liquid fuels consumed:		
By all tractors	26, 800, 000	852
By farm autos	28, 100, 000	375
By farm trucks	25, 800, 000	600
By stationary and mounted internal combustion engines	2, 100, 000	8
For household and miscellaneous use	25, 300, 000	96
Total	108, 100, 000	
Motor oil consumed:		
By all tractors	629, 400	20. 0
By farm autos	840, 000	11. 2
By farm motortrucks	739, 600	17. 2
By individual combustion engines	52, 700	0. 2
Total	2, 261, 700	

Fuel	Gallons of motor fuel used for each tractor	Gallons of fuel used for each farm household and for miscellaneous uses
Gasoline	481	3
Diesel fuel	45	
Distillate fuel	168	8
Kerosene	50	35
Other	108	50 [1]
Total	852	96

[1] Mostly liquefied petroleum gas.

Source: Farm Consumption of Liquid Petroleum Fuels and Motor Oil, Bureau of Agricultural Economics, U. S. D. A.

Appendix Table 7.—Shipments of fertilizer into Mississippi counties, July 1, 1951–June 30, 1952

Kinds	Tons shipped		
	Upland counties (68)	Delta counties (14)	Total counties (82)
Mixed goods:			
5–10–5	157, 881	2, 054	159, 935
5–10–10	10, 288	237	10, 525
6–8–8	130, 531	7, 577	138, 108
8–8–8	9, 471	299	9, 770
12–8–8	2, 479	295	2, 774
12–12–12	980	1, 440	2, 420
0–14–14	4, 673	1, 206	5, 879
Other	3, 569	279	3, 848
Total	319, 872	13, 387	333, 259
Average per county	4, 704	956	4, 064
Straight materials:			
Nitrate of soda	48, 648	13, 686	62, 334
Cynamid	321	4, 074	4, 395
Sulfate of ammonia	3, 548	29, 325	32, 873
Ammonium nitrate	66, 106	49, 474	115, 580
Anhydrous ammonia	5, 087	20, 024	25, 111
Calcium ammonium nitrate	3, 966	4, 520	8, 486
Other	2	100	102
Total nitrogen materials	127, 678	121, 203	248, 881
18 percent superphosphate	5, 722	0	5, 722
20 percent superphosphate	45, 103	5, 361	50, 464
45 percent superphosphate	1, 694	580	2, 274
Raw phosphate	5, 528	1, 960	7, 488
Other	11	0	11
Total phosphate materials	58, 058	7, 901	65, 959
Basic slag	93, 801	1, 511	95, 312
Total potash materials	24, 632	3, 395	28, 027
Total straight materials	304, 169	134, 010	438, 179
Average per county	4, 473	9, 572	5, 344
Grand total	624, 041	147, 397	771, 438
Average per county	9, 177	10, 528	9, 408

Source: State Department of Agriculture, Jackson, Miss.

Appendix Table 8.—Charges for seed cleaning and storage at Canton plant of Mississippi Federated Cooperatives (A. A. L.) during 1952

A—SEED CLEANING

Seed	Charge per hundred-weight [1]	Seed	Charge per hundred-weight [1]
Wheat and soy beans	$0.30	Sericea lespedeza (clean and scarify)	$3.50
Oats, sorghum and peas	.40	Vetch	.40
Crimson clover	1.00	Fescue and rye grass	2.40
Red clover	2.00	Wheat, oats, vetch and wild winter peas (cleaning and separating)	.80
White Dutch and Ladino clover	4.00	Special recleaning with gravity machine and dodder mill	1.50
Common and Kobe lespedeza	1.50		
Korean lespedeza	1.00		
Wild winter peas (scarify)	.40		

[1] Add 25 percent if lots are under 1,000 pounds on all items except clover where the minimum is 500 pounds. Add cleanup charge on all lots of $1.50 a lot for each machine used.

B—SEED STORAGE

Seed	"In" charge	Storage charge each month for 100 pounds net weight	Loading out and labeling when required—charge for 100 pounds net weight
Clover, Blue Lupine	$0.045	$0.03	$0.15
Other clover; alfalfa	.045	.05	.25
Lespedeza	.045	.05	.20
Brome grass; tall fescue	.045	.08	.25
Sudan grasses; timothy	.045	.05	.20
Range, orchard, wheat grasses	.045	.06	.25

In addition a charge of 2 cents a bag (any size) will be made for changing analysis data on tags by owner of seed.

A charge of 1 cent a bag (any size) will be made for sampling when requested by owner of seed.

Insurance at rate in effect, if insured.

Actual labor charge for any overtime which must be performed in connection with lot of commodity.

A minimum charge of $3 a month (per lot) will be made for storage and/or handling for the first month, and a minimum of $1 a month thereafter.

Appendix Table 9.—Condensed balance sheets of Mississippi Federated Co-operatives (A. A. L.) for specified fiscal years ended June 30, 1930, 1935, and May 31, 1940, 1945, and 1950

Item	June 30, 1930	June 30, 1935	May 31, 1940	May 31, 1945	May 31, 1950
ASSETS					
Current assets	$34,661	$40,634	$201,817	$1,447,599	$1,174,987
Fixed assets (net)	21,970	5,470	6,237	59,604	562,477
Other assets	31,109	92	990	5,929	243,768
Commodity loans on cotton	0	0	0	6,764,626	211,778
Total assets	87,740	46,196	209,044	8,277,758	2,193,010
LIABILITIES					
Current liabilities due outsiders	27,947	3,092	123,790	1,044,458	302,052
Current liabilities due members	0	0	1,785	11,849	171,061
Long term or deferred liabilities	28,698	0	0	89,072	185,000
Reserves	2,000	0	0	70,032	87,248
Commodity loans on cotton	0	0	0	6,676,553	211,778
Net worth	29,095	43,104	83,469	385,794	1,235,871
Total liabilities	87,740	46,196	209,044	8,277,758	2,193,010

Appendix Table 10.—Membership of Mississippi Federated Cooperatives (A. A. L.) in May 1953

Name	Address
1. Alcorn County Cooperative (A. A. L.)	Corinth, Miss.
2. Attala County Cooperative (A. A. L.)	Kosciusko, Miss.
3. Benton County Cooperative (A. A. L.)	Ashland, Miss.
4. Calhoun County Cooperative (A. A. L.)	Calhoun City, Miss.
5. Carroll County Cooperative (A. A. L.)	Carrollton, Miss.
6. Chickasaw County Cooperative (A. A. L.)	Houston, Miss.
7. Clarke County Cooperative (A. A. L.)	Quitman, Miss.
8. Clay County Cooperative (A. A. L.)	West Point, Miss.
9. Copiah County Cooperative (A. A. L.)	Hazlehurst, Miss.
10. DeSoto County Cooperative (A. A. L.)	Hernando, Miss.
11. The Farmers Cooperative (A. A. L.)	Eupora, Miss.
12. Farmers' Cooperative (A. A. L.)	Port Gibson, Miss.
*13. Farmers' Elevator & Supply Co	Belzoni, Miss.
14. Forrest County Cooperative (A. A. L.)	Hattiesburg, Miss.
15. Franklin County Cooperative (A. A. L.)	Meadville, Miss.
16. George County Cooperative (A. A. L.)	Lucedale, Miss.
17. Grenada County Cooperative (A. A. L.)	Grenada, Miss.
18. Hinds County Cooperative (A. A. L.)	Jackson, Miss.
19. Itawamba Farm Improvement Association (A. A. L.)	Fulton, Miss.
20. Jones County Cooperative (A. A. L.)	Laurel, Miss.
21. Lauderdale County Cooperative (A. A. L.)	Meridian, Miss.
22. Leake County Cooperative (A. A. L.)	Carthage, Miss.
23. Lee County Cooperative (A. A. L.)	Tupelo, Miss.
24. Lincoln County Cooperative (A. A. L.)	Brookhaven, Miss.
25. Lowndes County Cooperative (A. A. L.)	Columbus, Miss.
26. Madison County Cooperative (A. A. L.)	Canton, Miss.
*27. Magee Cooperative Gin (A. A. L.)	Magee, Miss.
28. Monroe County Cooperative (A. A. L.)	Aberdeen, Miss.
29. Neshoba County Cooperative (A. A. L.)	Philadelphia, Miss.
30. Noxubee County Cooperative (A. A. L.)	Macon, Miss.
31. Oktibbeha County Cooperative (A. A. L.)	Starkville, Miss.
32. Panola County Cooperative (A. A. L.)	Batesville, Miss.
33. Pike County Cooperative (A. A. L.)	McComb, Miss.
34. Pontotoc County Cooperative (A. A. L.)	Pontotoc, Miss.
35. Prentiss County Cooperative (A. A. L.)	Booneville, Miss.
36. Rankin County Cooperative (A. A. L.)	Brandon, Miss.
37. Scott County Cooperative (A. A. L.)	Forest, Miss.
38. Tate County Cold Storage Association (A. A. L.)	Senatobia, Miss.
39. Tippah County Cooperative (A. A. L.)	Ripley, Miss.
*40. Tri-County Cooperative (A. A. L.)	Pickens, Miss.
41. Union County Cooperative (A. A. L.)	New Albany, Miss.
42. Winston County Cooperative (A. A. U.)	Louisville, Miss.
43. Yalobusha County Cooperative (A. A. L.)	Coffeeville, Miss.

*All members except these have signed a financing and supervision agreement with Mississippi Federated Cooperatives (A. A. L.) which provides that their operations be financed, audited, and supervised by the State association.

Financing and Supervision Agreement

Mississippi Federated Cooperatives (AAL) Jackson, Mississippi

This agreement entered into by and between Mississippi Federated Cooperatives (A. A. L.) of Jackson, Miss., hereinafter called first party, and________________ County Cooperative (A. A. L.), of____________, Mississippi, hereinafter called second party.

Witnesseth:

Whereas, second party has applied, or may apply to first party for financial assistance, for the purpose of obtaining operating capital with which to carry on its cooperative farm supply and cooperative marketing operations, and

Whereas, second party wishes to secure first party against the possibility of loss which said first party might sustain on any monies or supplies advanced to said second party by first party,

Now, therefore, in consideration of the premises and in consideration of the benefits to be derived from this contract, second party agrees to the following:

1. To perfect and maintain its organization on a sound financial and membership basis.

2. To hold regular meetings of its membership, board of directors, and executive committees as provided in its bylaws.

3. To require its manager to secure signed applications for membership from all eligible patrons, and to establish and maintain a file of said applications; to maintain permanent, up-to-date membership list; to deliver to each member a properly signed, uniform membership card on acceptance of such member's application.

4. To require its manager to keep on file in the office of the cooperative the original minutes of all meetings of the board of directors and executive committee, or a copy of such minutes, certified by the secretary, and a certified copy of same to be furnished first party.

5. To conduct educational and membership campaigns throughout the county at stated intervals, in order to promote an understanding of the purposes and aims of its organization and to increase membership morale.

6. To handle its affairs in a conservative, businesslike manner acceptable to first party, and to employ a person as manager who is not related to any member of its board of directors, and who had been nominated by first party and approved by the board of directors, the compensation of said manager to be subject to the approval of both parties.

7. To enter into no major contracts without approval of first party.

8. Not to mortgage, pledge, or hypothecate any of its real or personal property without prior approval in writing by first party.

9. The second party shall not retire certificates of indebtedness, capital stock nor declare a cash patronage dividend nor shall there be any general disbursement of the assets of the organization without prior approval of the first party so long as second party may be indebted to first party.

10. It is further agreed that the other necessary employees which may be employed by the cooperative, on recommendation of its manager, shall not be related to any members of the board of directors or its manager, unless said person's employment shall have been approved by first party in writing. The compensation paid to all employees shall be subject to approval of first party.

11. To permit first party full and complete access at all times to all the books and records of second party and to permit first party free entry at all times to any and all buildings or warehouses wherever the stocks of goods held by second party may be stored for the purpose of ascertaining the inventory of such goods.

12. It is further agreed that the first party, at its discretion, when deemed necessary for its protection, shall have the power to terminate at any time the employment of said manager and all other employees of second party and to take over the control of all assets of second party and supply necessary management so long as second party may be indebted to first party.

13. To submit to first party a budget of expenses and to change or restrict said budget in any manner suggested by first party.

14. To maintain at its own expense adequate fire and tornado insurance covering all inventory and surety bonds covering its manager and other employees, in such amounts and form as may be satisfactory to first party. Said insurance policies and bond to be made payable to second party and to first party as their respective interests may appear. First party is hereby authorized to work out a cooperative arrangement for surety bonds and for fire and tornado insurance in connection with other member cooperatives, provided such arrangements can be made on an advantageous basis.

15. That it will maintain a bookkeeping system satisfactory to first party; that it will furnish to first party monthly financial statements and such other reports and information as may from time to time be required; and that it will annually have a complete audit of its books made by an auditor to be approved by first party. First party is hereby authorized to work out a cooperative arrangement for auditing, in connection with other member cooperatives, provided such arrangements can be made.

16. To maintain cash on hand and in bank and/or a stock of farm supplies in an amount not less than the outstanding indebtedness of second party to first party, and not to handle any farm supplies or other merchandise on consignment except from first party.

17. To supply patrons with merchandise or services only *for cash* so long as it is indebted to first party unless exceptions are authorized in writing by first party.

18. First party will enter into agreements, similar hereto, with other member cooperatives located in the State of Mississippi, and each participating cooperative will contribute one (1 percent) percent of the amount of all advances made to them by first party to a special reserve fund to be held by and used at the discretion of first party in defraying losses sustained by first party in connection with loans made to any member cooperative participating in such program. This special reserve fund will be added to and become accumulative from year to year and first party's board of directors shall have authority at its discretion to discontinue or reduce collections from this fund or to reinstate same if discontinued.

19. The selection of a depository bank for all funds of second party shall be made subject to approval of first party.

20. To pay any reasonable, necessary expense incurred by first party in the proper supervision of the operations of second party under this contract.

21. To cooperate with first party, coordinate its service program with that of first party, obtain all supplies from first party and market all commodities through first party, except those supplies and commodities that are not handled by first party, or unless authorized by first party to obtain or market elsewhere.

22. To add to the price of all supplies and products handled such a margin as will take care of all expenses and permit the establishment of adequate reserves.

First party, cooperating with second party in the carrying out and development of this program, agrees to the following:

1. That it will cooperate with second party and other member cooperatives in carrying out and developing a program of finance and supervision for said member cooperatives.

2. That first party will, to the extent that funds are available, and in such amounts as first party shall deem advisable, make advances or furnish supplies on consignment

to second party, and make necessary advances on farm products handled by second party.

3. That it will maintain supervision of the management, bookkeeping system and general business activities of second party; and that written reports regarding second party's operations will be submitted to it from time to time.

4. That it will safeguard all funds entrusted to its care and will handle its affairs and all affairs entrusted to it in a thoroughly businesslike manner; and that itwill render to second party from time to time a complete accounting for all funds handled for second party and make available to the Board of Directors of second party any and all books and records involving the business of second party for their examination.

5. It is mutually agreed that this contract shall become effective on and after the date of signing by both parties, and shall continue in effect until January 1, 1952, and continue thereafter so long as second party is indebted to the first party and thereafter until terminated in writing by either party.

In testimony whereof, witness the signature of both parties in triplicate.

MISSISSIPPI FEDERATED COOPERATIVES (A. A. L.),
First Party.

By ——— ———.

Attest:

(Date)

-------------------------------- COOPERATIVE (A. A. L.),
Second Party.

By ——— ———.

Attest:

(Date)

Sample of certificate of indebtedness used by member cooperatives of Mississippi Federated Cooperatives (A. A. L.).

CERTIFICATE OF INDEBTEDNESS No.____________

— OF —

____________________COUNTY COOPERATIVE (AAL)

____________________, MISSISSIPPI

$____________

For Value Received the________________________COUNTY COOPERATIVE (AAL) of

________________________Mississippi, hereby acknowledges itself indebted unto

________________________, or to the registered holder hereof, in the sum of

________________________________ ($____________) DOLLARS,

with interest thereon from date, at the rate of__________% per annum, interest computable annually on the first day of________________________of each year.

This certificate is one of a series of similar certificates issued or to be issued by said Association. The indebtedness evidenced hereby shall be payable or retireable solely in the discretion of the Board of Directors of the Association, and only when the Association is free from all indebtedness except that represented by this and similar certificates. The said Association, however, reserves the right to pay all or any part of the principal of this indebtedness at any time.

In case of liquidation of the Association, either voluntary or compulsory, all debts of the Association secured or unsecured shall be fully paid before any payment is made on this or similar certificates; provided, however, that this and all similar certificates shall be fully liquidated before any general distribution of the assets of the Association is made to the members thereof.

This certificate is non-negotiable and has been registered on the books of the Association, and no transfer thereof shall be valid unless made on the books of the Association by the registered owner or his attorney.

IN TESTIMONY WHEREOF witness the signature and seal of said Association on this

____________day of________________________, 19____.

ATTEST: ____________________**County Cooperative (AAL)**

________________________ By________________________

Secretary President

U. S. GOVERNMENT PRINTING OFFICE: 1954

Other Publications Available

Agricultural Cooperation in the United States. Bulletin 54. Ward W. Fetrow and R. H. Elsworth.

Using Your Purchasing Association. Circular E–11. Joseph G. Knapp and Martin A. Abrahamsen.

Operations of Major Regional Purchasing Cooperatives, 1941–51. Circular C–148. Martin A. Abrahamsen and Jane L. Scearce.

Handbook of Major Regional Farm Supply Purchasing Cooperatives, 1951 and 1952. Miscellaneous Report 172. Martin A. Abrahamsen and Jane L. Scearce.

Cooperative Business Training For Farm Youth. FCS Circular 1. Oscar R. LeBeau and John H. Heckman.

Petroleum Operations of Farmer Cooperatives. Circular C–139. J. Warren Mather.

Standards For Tank Truck Serviceman in West Central States. Circular C–149. J. Warren Mather.

Delivering Feed in Bulk. Circular C–143. Lacey F. Rickey.

Operating Costs of Selected Cooperative Feed Mills and Distributors. Bulletin 56. Lacey F. Rickey.

Cooperative Fertilizer Plants. Circular C–145. Eugene G. Grab, Wilbur M. Hurst, and Claud L. Scroggs.

Farmer Cooperation—An American Way. Circulars E–35 A, B, C, D, E.

Purchasing Hybrid Seed Corn Cooperatively. Miscellaneous Report 100. Thomas E. Hall.

Cooperative Seed Marketing. Miscellaneous Report 87. Thomas E. Hall.

Cooperative Purchasing of Seed in Relation to Crop Production. Miscellaneous Report 74. Thomas E. Hall.

Copies of these publications may be obtained upon request while a supply is available from

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